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## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name \_\_\_\_\_ Examiner # \_\_\_\_\_ Date: \_\_\_\_\_  
 An Unit \_\_\_\_\_ Phone Number 30 \_\_\_\_\_ Serial Number: \_\_\_\_\_  
 Mail Box and Bldg Room Location \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
 Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\** Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

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## STAFF USE ONLY

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>P. Schreiber</u>	NA Sequence (#) <u>8</u>	STN: _____	
Searcher Phone #: <u>308-4292</u>	AA Sequence (#) _____	Dialog: _____	
Searcher Location: <u>CM1 6A05</u>	Structure (#) _____	Quick: Other: _____	
Date Requested: _____	Bibliographic: _____	Ref: _____	
Date Completed: <u>7/30/03</u>	Litigation: _____	Web: _____	
Searcher Approval: <u>23</u>	Full text: _____	Sequence Systems: <u>Compu-gen Ig GCG</u>	
Format: _____	Patent Family: _____	WWW: _____	
Cost: <u>19</u>	Other: _____	Other: _____	

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US-09-371- 488 CTGWTALLVASVLPNIHASHEDSGKALAPKISISPRRTNSFHLDPDPSIPIIMVPGTGI  
consensus CTGWTALLVASVLPNIHASHEDSGKALAPKISISPRRTNSFHLDPDPSIPIIMVPGTGI

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consensus APFIFGLQHKREKLGQHPDNGAMWLEFGCRHKRDYLFKRELHFLKHGILTLKVSFS

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consensus RdapvgeeseapakyvQdnIqlhgqvarilIlqEnghiYvcgdaKnmakdvhdalVqIiske

US-09-371- 672 VGEKLEAMKTLATLKEEKRYLQDIWS  
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US-09-371- 672 VGEKLEAMKTLATLKEEKRYLQDIWS  
US-09-371- 671 VGEKLEAMKTLATLKEEKRYLQDIWS  
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consensus vgvckleamkclatlkeekrylqdiws

Alignment score = 2610.00

Scoring matrix:

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21			696	691	516
22				691	516
23					522
24					

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OM nucleic - nucleic search, using sw model

Run on: July 29, 2003, 10:56:19 ; Search time 425.084 Seconds  
(without alignments)  
10177.082 Million cell updates/sec

Title: US-09-371-347A-1  
Perfect score: 2097  
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Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 1439767 seqs, 1031500376 residues

Total number of hits satisfying chosen parameters: 2879534

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

Database : Published\_Applications\_NA:\*

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3: /cgn2\_6/ptodata/2/pubpna/US06\_NEW\_PUB.seq:\*  
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16: /cgn2\_6/ptodata/2/pubpna/US60\_NEW\_PUB.seq:\*  
17: /cgn2\_6/ptodata/2/pubpna/US60\_PUBCOMB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2097	100.0	2097	12	US-09-371-347-1
2	2097	100.0	3259	12	US-09-371-347-24
3	2095.4	99.9	2097	12	US-09-371-347-41
4	2095.4	99.9	2097	12	US-09-371-347-43
5	2081	99.2	2094	12	US-09-371-347-45
6	2079	99.1	2093	12	US-09-371-347-47
7	174.4	8.3	2475	12	US-09-809-5678-38
8	88.6	4.2	1872	11	US-09-917-800A-1351
9	88.6	4.2	2401	11	US-09-917-800A-1397
10	83.8	4.0	101	11	US-09-783-590-1364
11	61	2.9	298	10	US-09-294-0938-4842
12	59.6	2.8	2470	10	US-09-822-849A-278
13	58.4	2.8	230	10	US-09-823-876-2845
14	57.2	2.7	13508	8	US-08-781-986A-120
15	56	2.7	2136	11	US-09-938-842A-803
16	54.8	2.6	2403	11	US-09-880-107-3039

17	53.6	2.6	1863	10	US-09-765-873A-13	Sequence 13, App1
18	52.2	2.5	411	10	US-09-925-299-440	Sequence 440, App
19	52.2	2.5	411	12	US-09-925-299-440	Sequence 440, App
20	50.6	2.4	2088	15	US-10-128-714-7234	Sequence 7234, App
21	50.2	2.4	1448	10	US-09-939-980-113	Sequence 113, App
22	49.2	2.3	1944	15	US-10-272-017A-4	Sequence 4, App1
23	49.2	2.3	3037	10	US-09-911-781-10	Sequence 10, App1
24	49.2	2.3	4145	10	US-09-911-781-13	Sequence 3, App1
25	49.2	2.3	4145	12	US-09-976-800-82	Sequence 82, App1
26	49.2	2.3	4145	15	US-10-138-838-82	Sequence 82, App1
27	49.2	2.3	4145	15	US-10-139-031-82	Sequence 82, App1
28	49.2	2.3	4145	15	US-10-138-905-82	Sequence 82, App1
29	49.2	2.3	4145	15	US-10-138-916-82	Sequence 82, App1
30	47.6	2.3	1791	11	US-09-778-319-1	Sequence 1, App1
31	47.6	2.3	4957	15	US-10-201-213-1	Sequence 1, App1
32	46.4	2.2	1845	15	US-10-128-714-1234	Sequence 1234, App
33	46.4	2.2	1845	15	US-10-128-714-2234	Sequence 2234, App
34	46.4	2.2	2145	15	US-10-128-714-6234	Sequence 6234, App
35	46.4	2.2	3845	15	US-10-128-714-234	Sequence 234, App
36	46.4	2.2	4145	15	US-10-128-714-5234	Sequence 5234, App
37	46	2.2	1944	15	US-10-272-017A-1	Sequence 1, App1
38	46	2.2	4206	10	US-09-911-781-2	Sequence 2, App1
39	46	2.2	4206	12	US-09-976-800-81	Sequence 81, App1
40	46	2.2	4206	15	US-10-138-838-81	Sequence 81, App1
41	46	2.2	4206	15	US-10-139-031-81	Sequence 81, App1
42	46	2.2	4206	15	US-10-138-905-81	Sequence 81, App1
43	46	2.2	4206	15	US-10-138-916-81	Sequence 81, App1
44	46	2.2	640681	11	US-09-790-988-1	Sequence 1, App1
45	42.4	2.0	413	12	US-09-918-995-32917	Sequence 32917, A

## ALIGNMENTS

RESULT 1					
US-09-371-347-1					
: Sequence 1, Application US/09371347					
: Publication No. US20030082676A1					
: GENERAL INFORMATION: US20030082676A1					
: APPLICANT: Roy A. Gravel et al.					
: TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:					
: TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE					
: FILE REFERENCE: 50004/003003					
: CURRENT APPLICATION NUMBER: US/09/371.347					
: PRIOR FILING DATE: 1999-08-10					
: PRIOR APPLICATION NUMBER: 60/071.622					
: PRIOR FILING DATE: 1998-01-16					
: PRIOR APPLICATION NUMBER: 09/232.028					
: PRIOR FILING DATE: 1999-01-15					
: NUMBER OF SEQ ID NOS: 51					
: SOFTWARE: FastSeq for Windows Version 4.0					
: SEQ ID NO 1					
: LENGTH: 2097					
: TYPE: DNA					
: ORGANISM: Homo sapiens					
US-09-371-347-1					
Query Match					
Best Local Similarity 100.0%; Score 2097; DB 12; Length 2097;					
Matches 2097; Conservative 0; Mismatches 0; Indels 0; Gaps 0;					
QY	1	ATGAGGAGGTTTCTGTACTATATGCTACACAGGAGGAGGAAAGGCAATCGCAGAA	60		
DB	1	ATGAGGAGGTTTCTGTACTATATGCTACACAGGAGGAGGAAAGGCAATCGCAGAA	60		
QY	61	GAATGTGTAGCAGAGCTGTGTACATGATTTTCTCAGATCTTCACTAATAGCAA	120		
DB	61	GAATGTGTAGCAGAGCTGTGTACATGATTTTCTCAGATCTTCACTAATAGCAA	120		
QY	121	TCGATATGATGTGACCTTAACCAAGCAAGCTCTTGTGTGTGTGTATACACAG	180		
DB	121	TCGATATGATGTGACCTTAACCAAGCAAGCTCTTGTGTGTGTGTATACACAG	180		

OY	181	36CACGGAGAGACCCACCCGACACACACC	CCGCAAGTTTGTTAAGGAATACAGACCA	240
OY	181	GGACACGGAGACCCACCCGACACACC	CGCAAGTTTGTTAAGGAATACAGACCA	240
OY	241	CTGCCGTGTGATTTCTTGTCTACCTGGCGGATGGGTACTGGGCTCGTGATTCAGAA	300	
OY	241	CTGCCGTGTGATTTCTTGTCTACCTGGCGGATGGGTACTGGGCTCGTGATTCAGAA	300	
OY	241	CTGCCGTGTGATTTCTTGTCTACCTGGCGGATGGGTACTGGGCTCGTGATTCAGAA	300	
OY	301	TACACCTACTTTTGCAATGGGGGAGATTAATTGATTAACGACTTCAAGACCTTGAGACC	360	
OY	301	TACACCTACTTTTGCAATGGGGGAGATTAATTGATTAACGACTTCAAGACCTTGAGACC	360	
OY	361	CGCGATTTCTATAGACACTGGACATGCATATGACGTGTGAAGTTTGAACCTTGCTGTGAG	420	
OY	361	CGCGATTTCTATAGACACTGGACATGCATATGACGTGTGAAGTTTGAACCTTGCTGTGAG	420	
OY	421	CCGTGGATTTGCTGACCTCTGGCCACGCCCTCAGAAAGCAATTTTAAAGTCAAGCAGAGACAA	480	
OY	421	CCGTGGATTTGCTGACCTCTGGCCACGCCCTCAGAAAGCAATTTTAAAGTCAAGCAGAGACAA	480	
OY	481	GAGGAGATTAAGGGGGGCGACCTCCCGGTGGCATACCTGCATCTTGAGACAGACCTGTG	540	
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OY	541	AAGTCAGAGCTGCTACACATTGAATCTCAAGTCGAGCTTCTGAGATTTGATGATTCAGGA	600	
OY	541	AAGTCAGAGCTGCTACACATTGAATCTCAAGTCGAGCTTCTGAGATTTGATGATTCAGGA	600	
OY	601	AGAAAGATTCMGAGGTTTGAAGCAAAATCGAGTACAGACACACCAATCCAAATGTGTA	660	
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OY	661	ATTGAAGACTTTGAGTCTCTCACTTACCCGTTGGTACCCCACTCTCTCAAGACCTCTCTG	720	
OY	721	AATATTCCTGGTTTACCCCCAGAAATATTTACAGTACATCTGACAGAGATCTCTTGGCCAG	780	
OY	721	AATATTCCTGGTTTACCCCCAGAAATATTTACAGTACATCTGACAGAGATCTCTTGGCCAG	780	
OY	781	GAGCAAAACCCAAAGTCTGTGACTTCACACAGTCCAGTTTCAAGTCCCAATTTCAAG	840	
OY	781	GAGCAAAACCCAAAGTCTGTGACTTCACACAGTCCAGTTTCAAGTCCCAATTTCAAG	840	
OY	841	GCAGTTCACCTTACTAGCATGATGATGCCATYAAAACCACTGCTGTGAATTTGGACATY	900	
OY	841	GCAGTTCACCTTACTAGCATGATGATGCCATYAAAACCACTGCTGTGAATTTGGACATY	900	
OY	901	TCAATATACAGCTTTTCTATCAGCTGSGAATGCTTCACGCGATCTGCCCTTAACAGT	960	
OY	901	TCAATATACAGCTTTTCTATCAGCTGSGAATGCTTCACGCGATCTGCCCTTAACAGT	960	
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OY	1021	GTCCTTTGAAATTAAGAGCAGACACAAAGAAGAAAGAGACGTACCTTAACCCACATATA	1080	
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OY	1081	CTCGCGGAGTCTCTCTCAGTATTTTACGTGTCTTGAATTCGAGCAATTCCT	1140	
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OY	1141	AAAAAGCATTTTTCGAGCCCTTGTGACTATACCAAGTACAGTGTGAAAGACGACG	1200	
OY	1201	CTACAGAGCTGTGCATTAACCAAGGGGACGCCATTAATACCGCTTTGTATCGAGATGCC	1260	
OY	1201	CTACAGAGCTGTGCATTAACCAAGGGGACGCCATTAATACCGCTTTGTATCGAGATGCC	1260	

OY	1261	TTGTGCTTCCTGTGGATCTCTCTCGCTTTCCTTCTTCGAGCCACCACTAGTCT	1320
Db	1261	TGTGCTTCCTTGTGGATCTCTCTCGCTTTCCTTCTTCGAGCCACCACTAGTCT	1320
OY	1321	CTGCTCGAACATCTCTTCTTAACCTTCAACCCAGACCATATTCGTGTGCAAGCTCAAGTTTA	1380
Db	1321	CTGCTCGAACATCTCTTCTTAACCTTCAACCCAGACCATATTCGTGTGCAAGCTCAAGTTTA	1380
OY	1381	TTTCAACCAGAGAAAGCTTCCATTTTGTCTTCAACATTGTGGATTTTGTCTACTGCCACA	1440
Db	1381	TTTCAACCAGAGAAAGCTTCCATTTTGTCTTCAACATTGTGGATTTTGTCTACTGCCACA	1440
OY	1441	ACAGAGGTTCTCGGAGGAGGAGTATGTACAGAGCTGGCGGCTGTGGTTCCTCAAGTT	1500
Db	1441	ACAGAGGTTCTCGGAGGAGGAGTATGTACAGAGCTGGCGGCTGTGGTTCCTCAAGTT	1500
OY	1501	CTTGAGGCCAATACATATGCATGCCATGAAGACAGCGGGAAAGCCCTGCTCTCAAGATA	1560
Db	1501	CTTGAGGCCAATACATATGCATGCCATGAAGACAGCGGGAAAGCCCTGCTCTCAAGATA	1560
OY	1561	TTCCATCTCTCTCGAACAACAATTTCTTCCACTTACACATGACCCCTCAATCCCATC	1620
Db	1561	TTCCATCTCTCTCGAACAACAATTTCTTCCACTTACACATGACCCCTCAATCCCATC	1620
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Db	1621	ATATGTGGGTGTCGAGAACCGGCGATAGCCCGCTTATTTGGTTCCTCAACAATAGAGAG	1680
OY	1681	AAACTCCAGAACACACCCAGATGAGAAATTTGGAGCAATGTGTTTGTGGCTGC	1740
Db	1681	AAACTCCAGAACACACCCAGATGAGAAATTTGGAGCAATGTGTTTGTGGCTGC	1740
OY	1741	AGGATTAAGGATAGGAGATTATCTATTGAGAAAAGCTCAGACATTTCTTAAGCATGGG	1800
Db	1741	AGGATTAAGGATAGGAGATTATCTATTGAGAAAAGCTCAGACATTTCTTAAGCATGGG	1800
OY	1801	ATCTTAACTCATCTAAGAGTTTCCCTTCTCAAGAGATCTCTCTGTGGGAGAGAGAACCC	1860
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OY	1921	CTCAGAGGAAGCGGCATTTATGTGTGTGTGAGATCCAAAGATATGGCCAAAGAGATGA	1980
Db	1921	CTCAGAGGAAGCGGCATTTATGTGTGTGTGAGATCCAAAGATATGGCCAAAGAGATGA	1980
OY	1981	CATGATGCCCTTGTGCAAAATATATAGCAAAAGAGTGTGAGTTGAAAACATGAAGCAATG	2040
Db	1981	CATGATGCCCTTGTGCAAAATATATAGCAAAAGAGTGTGAGTTGAAAACATGAAGCAATG	2040
OY	2041	AAAAACCTGGCCACTTTAAAAAGAAAGAAAGCGTACTTCAAGATATTTGGTCAATA	2097
Db	2041	AAAAACCTGGCCACTTTAAAAAGAAAGAAAGCGTACTTCAAGATATTTGGTCAATA	2097

RESULT 2  
US-09-371-347-24  
: Sequence 24, Application US/09371347  
: Publication No. US20030082676A1  
: GENERAL INFORMATION:  
: APPLICANT: ROY A. Gravei et al.  
: TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:  
: TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
: TITLE OF INVENTION: DEFECTS,CARDIOVASCULAR DISEASE, AND CANCER  
: FILE REFERENCE: 50004/003003  
: CURRENT APPLICATION NUMBER: US/09/371,347  
: CURRENT FILING DATE: 1999-08-10  
: PRIOR APPLICATION NUMBER: 60/071,622  
: PRIOR FILING DATE: 1998-01-16  
: PRIOR APPLICATION NUMBER: 09/232,028  
: PRIOR FILING DATE: 1999-01-15

NUMBER OF SEQ ID NOS: 51  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 24  
LENGTH: 3259  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-371-347-24

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Best Local Similarity 100.0% Pred. No. 0:  
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80 ATGAGGAGGTTCTGTTACTATATGCTACACAGCAGGAGGACGCAAGGCCATCGCAGAA 139  
61 GAAATGTGTGAGCAAGCTGTGTACATGATGATTTTCTGCAGATCTTCACTGTAATAGTGA 120  
140 GAAATGTGTGAGCAAGCTGTGTACATGATGATTTTCTGCAGATCTTCACTGTAATAGTGA 199  
121 TCCGATAGTATGACCTAAACCGAAACAGCTCTCTGTGTGTGTGTCTTACACGAG 180  
200 TCCGATAGTATGACCTAAACCGAAACAGCTCTCTGTGTGTGTGTCTTACACGAG 259  
181 GGCACCGGAGACCCAGCCGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240  
260 GGCACCGGAGACCCAGCCGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 319  
241 CTGCGCGGTGATTTCTTTTCTGTCACCTGCGGTATGGGTTTACTGGGCTCTCGTGAATTCAGAA 300  
320 CTGCGCGGTGATTTCTTTTCTGTCACCTGCGGTATGGGTTTACTGGGCTCTCGTGAATTCAGAA 379  
301 TACACCTACTTTTGCATGGGGGGAATTAATGATAACGACCTTCAAGACCTTGGAGCC 360  
380 TACACCTACTTTTGCATGGGGGGAATTAATGATAACGACCTTCAAGACCTTGGAGCC 439  
361 CGGCAATTTCTATGACACTGACATGACAGATGACTGTGTAGTTTGAACCTTGTGGTTAG 420  
440 CGGCAATTTCTATGACACTGACATGACAGATGACTGTGTAGTTTGAACCTTGTGGTTAG 499  
421 CCGTGATTTGCTGACCTGTGGCCAGCCCTCAGAAAGCATTTTAGTCAAGCAGAGAGAA 480  
500 CCGTGATTTGCTGACCTGTGGCCAGCCCTCAGAAAGCATTTTAGTCAAGCAGAGAGAA 559  
481 GAGGAGATTAAGTGGGCGACCTCCGGTGGCATCACCTGATCCTTGGAGACAGACCTTGTG 540  
560 GAGGAGATTAAGTGGGCGACCTCCGGTGGCATCACCTGATCCTTGGAGACAGACCTTGTG 619  
541 AAGTCAGAGCTGTACACATTAAGTCAAGTCAAGTCTTGTAGATTCGATGATTCAGGA 600  
620 AAGTCAGAGCTGTACACATTAAGTCAAGTCAAGTCTTGTAGATTCGATGATTCAGGA 679  
601 AGAAAGATTTCTGAGGTTTGAAGCAAAATGCAAGTGAACAGACCAATCCAAATGTTGTA 660  
680 AGAAAGATTTCTGAGGTTTGAAGCAAAATGCAAGTGAACAGACCAATCCAAATGTTGTA 739  
661 ATTGAGAGCTTGAAGTCTCACTTAACCGGTGCGATACCCCACTCTCAAGCCCTCTGTG 720  
740 ATTGAGAGCTTGAAGTCTCACTTAACCGGTGCGATACCCCACTCTCTCAAGCCCTCTGTG 799  
721 AATATCTCTGTTTACCCCGAATATTTACAGGATCATCTGACAGAGTCTCTTGGCCAG 780  
800 AATATCTCTGTTTACCCCGAATATTTACAGGATCATCTGACAGAGTCTCTTGGCCAG 859  
781 GAGGAAAGCCAAAGTATCTGTGACTTACAGAGATCCAGTTTTCAGAGTCCAAATTTCAAG 840  
860 GAGGAAAGCCAAAGTATCTGTGACTTACAGAGATCCAGTTTTCAGAGTCCAAATTTCAAG 919  
841 GCAGTTCAAGTATACAGATGATGCAATAAACCACTGCTGCTGTAATTTGACATTT 900  
920 GCAGTTCAAGTATACAGATGATGCAATAAACCACTGCTGCTGTAATTTGACATTT 979  
901 TCAATATACAGATTTCTCTATCAGCTGAGATGCTTCAAGGTGATCTGCCCTTAACAGT 960

980 TCAATATACAGATTTCTCTATCAGCTGAGATGCTTCAAGGTGATCTGCCCTTAACAGT 1039  
961 GATTCGTAGGTACAAAGCCTTCTCCAAAGATCGACGTTGAAAGTAAAGAGACACTGC 1020  
1040 GATTCGTAGGTACAAAGCCTTCTCCAAAGATCGACGTTGAAAGTAAAGAGACACTGC 1099  
1021 GTCCCTTTGAAATTAAGGAGACACAAGAAAGAGAGTACTTACCCAGCATATA 1080  
1100 GTCCCTTTGAAATTAAGGAGACACAAGAAAGAGAGTACTTACCCAGCATATA 1159  
1081 CCTGCGGAGTGTCTCTCAGTTCAATTTTACCTGCTGCTTGAATTCGAGCAATTCCT 1140  
1160 CCTGCGGAGTGTCTCTCAGTTCAATTTTACCTGCTGCTTGAATTCGAGCAATTCCT 1219  
1141 AAAAAAGCATTTTTCGAGCCCTTGTGACATATACAGTGCAGTGCAGAAAGCCGAGG 1200  
1220 AAAAAAGCATTTTTCGAGCCCTTGTGACATATACAGTGCAGTGCAGAAAGCCGAGG 1279  
1201 CTACAGAGCTGTGACATTAACAAAGGGGAGCCGATTTATACCCGCTTGTACAGAGATCC 1260  
1280 CTACAGAGCTGTGACATTAACAAAGGGGAGCCGATTTATACCCGCTTGTACAGAGATCC 1339  
1261 TGTGCTGCTGTTGTGATCTCTCTGCTGCTTCTTCCCTTTCGACAGCCACACTGATCTC 1320  
1340 TGTGCTGCTGTTGTGATCTCTCTGCTGCTTCTTCCCTTTCGACAGCCACACTGATCTC 1399  
1321 CTGCTCGAACAATTTCTTAACTTCAACCCGACAGCATATTTGTGTGCAAGTCAAGTTTA 1380  
1400 CTGCTCGAACAATTTCTTAACTTCAACCCGACAGCATATTTGTGTGCAAGTCAAGTTTA 1459  
1381 TTTCACCCAGGAAAGCTCATTTTGTCTTCAACATTTGGGAATTTCTGTACTAGCCACA 1440  
1460 TTTCACCCAGGAAAGCTCATTTTGTCTTCAACATTTGGGAATTTCTGTACTAGCCACA 1519  
1441 ACAGAGTTCGCGGAGGAGTATGTACAGGCTGCGCTGCGCTTGTGTTGCTTCACTT 1500  
1520 ACAGAGTTCGCGGAGGAGTATGTACAGGCTGCGCTGCGCTTGTGTTGCTTCACTT 1579  
1501 CTTGACGCAAAATATCATGATCCCATGAACAGCGGAAAGCCCTGCGCTCAATAGTA 1560  
1580 CTTGACGCAAAATATCATGATCCCATGAACAGCGGAAAGCCCTGCGCTCAATAGTA 1639  
1561 TCCATCTCTCTCGAACAACAATTTCTTCCACTTACAGATGACCCCTCATCCCATTC 1620  
1640 TCCATCTCTCTCGAACAACAATTTCTTCCACTTACAGATGACCCCTCATCCCATTC 1699  
1621 ATATGTGTGGTCCAGAAACCGGCAATGACCCCGTTTATTTGGGTTCTTCAACATAGAGAG 1680  
1700 ATATGTGTGGTCCAGAAACCGGCAATGACCCCGTTTATTTGGGTTCTTCAACATAGAGAG 1759  
1681 AAACCTCCAAAGAACACCCAGATGGAATTTTGGAGCAATGTGTTTGTGTTGGCTGTC 1740  
1760 AAACCTCCAAAGAACACCCAGATGGAATTTTGGAGCAATGTGTTTGTGTTGGCTGTC 1819  
1741 AGGCATAGGATAGGATTTATCTATTCAGAAAGAGCTCAGACATTTCTTAAGCATGGG 1800  
1820 AGGCATAGGATAGGATTTATCTATTCAGAAAGAGCTCAGACATTTCTTAAGCATGGG 1879  
1801 ATCTTAACTCATTAAGGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAAACC 1860  
1880 ATCTTAACTCATTAAGGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAAACC 1939  
1861 CCAGCAAAAGTATGTACAGAACATCCAGTCTTCAAGGAGAGAGTGGCAGAAATCTCTC 1920  
1940 CCAGCAAAAGTATGTACAGAACATCCAGTCTTCAAGGAGAGAGTGGCAGAAATCTCTC 1999  
1921 CTCGAGAGAGAGGCAATTTATGTGTGTGAGATGCAAGAAATATGCGCAAGAGATTA 1980  
2000 CTCGAGAGAGAGGCAATTTATGTGTGTGAGATGCAAGAAATATGCGCAAGAGATTA 2059  
1981 CATGATGCCCTTGTGCAAAATAAAGCAAGAGTTGAGTGAATAACTAGAAACAAATG 2040

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Db      2060 CATGATGCCCTTGTCAGAAATTAATAGCAAGAGTTGAGTTGAAAACTAGAACGATG 2119
QY      2041 AAAACCTGGCCACTTTAAAGAGAAAAACCTACTCTCAGGATATTGTGCTATTA -2097
Db      2120 AAAACCTGGCCACTTTAAAGAGAAAAACCTACTCTCAGGATATTGTGCTATTA 2176

RESULT 3
US-09-371-347-41
; Sequence 41, Application US/09371347
; Publication No. US20030082676A1
; GENERAL INFORMATION:
; APPLICANT: Roy A. Cravel et al.
; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE
; TITLE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER
; FILE REFERENCE: 50004/003003
; CURRENT APPLICATION NUMBER: US/09/371,347
; PRIOR FILING DATE: 1999-08-10
; PRIOR APPLICATION NUMBER: 60/071,622
; PRIOR FILING DATE: 1998-01-16
; PRIOR APPLICATION NUMBER: 09/232,028
; PRIOR FILING DATE: 1999-01-15
; NUMBER OF SEQ ID NOS: 51
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 41
; LENGTH: 2097
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-371-347-41

Query Match      99.9%; Score 2095.4; DB 12; Length 2097;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2096; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY      1  ATGAGAGGTTTCTGTACTATATGCTACAGAGGAGGAGGCAAGGCAATGGCATA 60
Db      1  ATGAGAGGTTTCTGTACTATATGCTACAGAGGAGGAGGCAAGGCAATGGCATA 60
QY      61  GAAATGTGTGAGCAAGCTGTGTATCATGATTTTCTGAGATCTTCACTGATTAATGTA 120
Db      61  GAAATGTGTGAGCAAGCTGTGTATCATGATTTTCTGAGATCTTCACTGATTAATGTA 120
QY      121 TCCGTAAGTATGACCTTAAACCAAGAGCTCTCTGTTGTTGTGTTCTTACACAG 180
Db      121 TCCGTAAGTATGACCTTAAACCAAGAGCTCTCTGTTGTTGTGTTCTTACACAG 180
QY      121 TCCGTAAGTATGACCTTAAACCAAGAGCTCTCTGTTGTTGTGTTCTTACACAG 180
Db      121 TCCGTAAGTATGACCTTAAACCAAGAGCTCTCTGTTGTTGTGTTCTTACACAG 180
QY      181 GGCACCGGAGACCCCGGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240
Db      181 GGCACCGGAGACCCCGGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240
QY      181 GGCACCGGAGACCCCGGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240
Db      181 GGCACCGGAGACCCCGGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240
QY      241 CTGCCGGTGTATTTCTTTGCTACCTGCGGTATGGGTTACTGGTCTCGGTGATTCAGAA 300
Db      241 CTGCCGGTGTATTTCTTTGCTACCTGCGGTATGGGTTACTGGTCTCGGTGATTCAGAA 300
QY      241 CTGCCGGTGTATTTCTTTGCTACCTGCGGTATGGGTTACTGGTCTCGGTGATTCAGAA 300
Db      241 CTGCCGGTGTATTTCTTTGCTACCTGCGGTATGGGTTACTGGTCTCGGTGATTCAGAA 300
QY      301 TACACCTACTTTTGAATGGGGGGAAGTAATTGATTAACAGACTTCAAGACCTTGGAGCC 360
Db      301 TACACCTACTTTTGAATGGGGGGAAGTAATTGATTAACAGACTTCAAGACCTTGGAGCC 360
QY      301 TACACCTACTTTTGAATGGGGGGAAGTAATTGATTAACAGACTTCAAGACCTTGGAGCC 360
Db      301 TACACCTACTTTTGAATGGGGGGAAGTAATTGATTAACAGACTTCAAGACCTTGGAGCC 360
QY      361 CGGCATTTCATGACACTGACATGACATGACTGTGATGTTTGAAGAACTTGTGGTTAG 420
Db      361 CGGCATTTCATGACACTGACATGACATGACTGTGATGTTTGAAGAACTTGTGGTTAG 420
QY      361 CGGCATTTCATGACACTGACATGACATGACTGTGATGTTTGAAGAACTTGTGGTTAG 420
Db      361 CGGCATTTCATGACACTGACATGACATGACTGTGATGTTTGAAGAACTTGTGGTTAG 420
QY      421 CCGTGAGATTTGCTGACTCTGGCCAGCCCTCAGAAAGCATTTTATAGTCAAGCAGAGACAA 480
Db      421 CCGTGAGATTTGCTGACTCTGGCCAGCCCTCAGAAAGCATTTTATAGTCAAGCAGAGACAA 480
QY      421 CCGTGAGATTTGCTGACTCTGGCCAGCCCTCAGAAAGCATTTTATAGTCAAGCAGAGACAA 480
Db      421 CCGTGAGATTTGCTGACTCTGGCCAGCCCTCAGAAAGCATTTTATAGTCAAGCAGAGACAA 480
QY      481 GAGAGAGTAATGAGGCGCACTCCCGGTGGCAGTACCTGATCTTGGAGACAGACCTTGTG 540
Db      481 GAGAGAGTAATGAGGCGCACTCCCGGTGGCAGTACCTGATCTTGGAGACAGACCTTGTG 540
QY      481 GAGAGAGTAATGAGGCGCACTCCCGGTGGCAGTACCTGATCTTGGAGACAGACCTTGTG 540
Db      481 GAGAGAGTAATGAGGCGCACTCCCGGTGGCAGTACCTGATCTTGGAGACAGACCTTGTG 540
QY      541 AAGTCAGAGCTGTACATGTAATCTCAAGTCGAGCTTTCAGATTCGATTCAGAGA 600
Db      541 AAGTCAGAGCTGTACATGTAATCTCAAGTCGAGCTTTCAGATTCGATTCAGAGA 600

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Db      541 AAGTCAGAGCTGTACATGTAATCTCAAGTCGAGCTTTCAGATTCGATTCAGAGA 600
QY      601 AGAAGAGATTTGAGGTTTGAAGCAAAATGAGGACAGACAGAACCATTCATTTGTGA 660
Db      601 AGAAGAGATTTGAGGTTTGAAGCAAAATGAGGACAGACAGAACCATTCATTTGTGA 660
QY      661 ATTGAAGACTTTGAGTCTCAGACTTACCCGTTGGTATGCCCACTCTCAAGGCTCTGTG 720
Db      661 ATTGAAGACTTTGAGTCTCAGACTTACCCGTTGGTATGCCCACTCTCTGTG 720
QY      661 ATTGAAGACTTTGAGTCTCAGACTTACCCGTTGGTATGCCCACTCTCTGTG 720
Db      661 ATTGAAGACTTTGAGTCTCAGACTTACCCGTTGGTATGCCCACTCTCTGTG 720
QY      721 AATATCTCTGTTTACCCCGCAAAATTTTACAGTATCTGACAGAGTCTCTGTGGCAG 780
Db      721 AATATCTCTGTTTACCCCGCAAAATTTTACAGTATCTGACAGAGTCTCTGTGGCAG 780
QY      721 AATATCTCTGTTTACCCCGCAAAATTTTACAGTATCTGACAGAGTCTCTGTGGCAG 780
Db      721 AATATCTCTGTTTACCCCGCAAAATTTTACAGTATCTGACAGAGTCTCTGTGGCAG 780
QY      781 GAGGAAGCCAGATATCTGTGACTCAGAGATTCAGATTTTCAAGTCCCAATTTTCAAG 840
Db      781 GAGGAAGCCAGATATCTGTGACTCAGAGATTCAGATTTTCAAGTCCCAATTTTCAAG 840
QY      781 GAGGAAGCCAGATATCTGTGACTCAGAGATTCAGATTTTCAAGTCCCAATTTTCAAG 840
Db      781 GAGGAAGCCAGATATCTGTGACTCAGAGATTCAGATTTTCAAGTCCCAATTTTCAAG 840
QY      841 GCAGTTCAACTTACTACGATGATGATCCATTAACCACTCTGCTGTGAATGGACATTT 900
Db      841 GCAGTTCAACTTACTACGATGATGATCCATTAACCACTCTGCTGTGAATGGACATTT 900
QY      841 GCAGTTCAACTTACTACGATGATGATCCATTAACCACTCTGCTGTGAATGGACATTT 900
Db      841 GCAGTTCAACTTACTACGATGATGATCCATTAACCACTCTGCTGTGAATGGACATTT 900
QY      901 TCAATATACAGACTTTTCTATACGCTGAGATGCTTACAGGATCTGCTTAAACAGT 960
Db      901 TCAATATACAGACTTTTCTATACGCTGAGATGCTTACAGGATCTGCTTAAACAGT 960
QY      901 TCAATATACAGACTTTTCTATACGCTGAGATGCTTACAGGATCTGCTTAAACAGT 960
Db      901 TCAATATACAGACTTTTCTATACGCTGAGATGCTTACAGGATCTGCTTAAACAGT 960
QY      961 GATTCGAGTAAAGGCTTCTCAAGAGCTTGCAGCTTGAAGATTAAGAGAGCATTCG 1020
Db      961 GATTCGAGTAAAGGCTTCTCAAGAGCTTGCAGCTTGAAGATTAAGAGAGCATTCG 1020
QY      961 GATTCGAGTAAAGGCTTCTCAAGAGCTTGCAGCTTGAAGATTAAGAGAGCATTCG 1020
Db      961 GATTCGAGTAAAGGCTTCTCAAGAGCTTGCAGCTTGAAGATTAAGAGAGCATTCG 1020
QY      1021 GTCTTTTGAAGATTAAGGAGACACAAAGAGAGAGGAGCTTACCTCCAGCATTTA 1080
Db      1021 GTCTTTTGAAGATTAAGGAGACACAAAGAGAGAGGAGCTTACCTCCAGCATTTA 1080
QY      1021 GTCTTTTGAAGATTAAGGAGACACAAAGAGAGAGGAGCTTACCTCCAGCATTTA 1080
Db      1021 GTCTTTTGAAGATTAAGGAGACACAAAGAGAGAGGAGCTTACCTCCAGCATTTA 1080
QY      1081 CCTGGGAGATGTTCTCTCAGTTTCTTACCTGTTGTTGTTGAATTCGAGCAATTCCT 1140
Db      1081 CCTGGGAGATGTTCTCTCAGTTTCTTACCTGTTGTTGTTGAATTCGAGCAATTCCT 1140
QY      1081 CCTGGGAGATGTTCTCTCAGTTTCTTACCTGTTGTTGTTGAATTCGAGCAATTCCT 1140
Db      1081 CCTGGGAGATGTTCTCTCAGTTTCTTACCTGTTGTTGTTGAATTCGAGCAATTCCT 1140
QY      1141 AAAAAGGATTTTGTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1200
Db      1141 AAAAAGGATTTTGTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1200
QY      1141 AAAAAGGATTTTGTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1200
Db      1141 AAAAAGGATTTTGTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1200
QY      1201 CTACAGAGCTGTGAGTAAACCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1260
Db      1201 CTACAGAGCTGTGAGTAAACCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1260
QY      1201 CTACAGAGCTGTGAGTAAACCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1260
Db      1201 CTACAGAGCTGTGAGTAAACCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1260
QY      1261 TGTGCTGCTGTTGAGATCTCTCTGCTTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 1320
Db      1261 TGTGCTGCTGTTGAGATCTCTCTGCTTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 1320
QY      1261 TGTGCTGCTGTTGAGATCTCTCTGCTTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 1320
Db      1261 TGTGCTGCTGTTGAGATCTCTCTGCTTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 1320
QY      1321 CTGCTCGAACAATCTTCTTAACCTTCAACCCAGACATATTGCTGGAAGCTTCAAGTTTA 1380
Db      1321 CTGCTCGAACAATCTTCTTAACCTTCAACCCAGACATATTGCTGGAAGCTTCAAGTTTA 1380
QY      1321 CTGCTCGAACAATCTTCTTAACCTTCAACCCAGACATATTGCTGGAAGCTTCAAGTTTA 1380
Db      1321 CTGCTCGAACAATCTTCTTAACCTTCAACCCAGACATATTGCTGGAAGCTTCAAGTTTA 1380
QY      1381 TTTGACCCAGGAAAGCTTCTTCAACCTTCAACCCAGACATATTGCTGGAAGCTTCAAGTTTA 1440
Db      1381 TTTGACCCAGGAAAGCTTCTTCAACCTTCAACCCAGACATATTGCTGGAAGCTTCAAGTTTA 1440
QY      1381 TTTGACCCAGGAAAGCTTCTTCAACCTTCAACCCAGACATATTGCTGGAAGCTTCAAGTTTA 1440
Db      1381 TTTGACCCAGGAAAGCTTCTTCAACCTTCAACCCAGACATATTGCTGGAAGCTTCAAGTTTA 1440
QY      1441 ACAGAGGTTCTGCGGAGGAGGATATGACAGGCTGCTGCTGCTGCTGCTGCTGCTGCT 1500
Db      1441 ACAGAGGTTCTGCGGAGGAGGATATGACAGGCTGCTGCTGCTGCTGCTGCTGCTGCT 1500
QY      1441 ACAGAGGTTCTGCGGAGGAGGATATGACAGGCTGCTGCTGCTGCTGCTGCTGCTGCT 1500
Db      1441 ACAGAGGTTCTGCGGAGGAGGATATGACAGGCTGCTGCTGCTGCTGCTGCTGCTGCT 1500
QY      1501 CTTGAGCCAAACATACATGATCTTCCATGAGACAGGAGGAGGAGGAGGAGGAGGAGGAG 1560
Db      1501 CTTGAGCCAAACATACATGATCTTCCATGAGACAGGAGGAGGAGGAGGAGGAGGAGGAG 1560
QY      1501 CTTGAGCCAAACATACATGATCTTCCATGAGACAGGAGGAGGAGGAGGAGGAGGAGGAG 1560
Db      1501 CTTGAGCCAAACATACATGATCTTCCATGAGACAGGAGGAGGAGGAGGAGGAGGAGGAG 1560
QY      1561 TCCATCTCTCTCTGCAACAAACAAATTTCTTCACTTACAGATGACCCCTCAATCCCATC 1620
Db      1561 TCCATCTCTCTCTGCAACAAACAAATTTCTTCACTTACAGATGACCCCTCAATCCCATC 1620
QY      1561 TCCATCTCTCTCTGCAACAAACAAATTTCTTCACTTACAGATGACCCCTCAATCCCATC 1620
Db      1561 TCCATCTCTCTCTGCAACAAACAAATTTCTTCACTTACAGATGACCCCTCAATCCCATC 1620
QY      1621 AATATGAGGCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1680
Db      1621 AATATGAGGCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1680
QY      1621 AATATGAGGCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1680
Db      1621 AATATGAGGCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1680

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QY 1681 AACCTCAAGAACACACCAGATGGAAATTTTGAGCAATGNGTGTGTTTTTGGCTGC 1740  
DB 1681 AAACCTCAAGAACACACCAGATGGAAATTTTGAGCAATGNGTGTGTTTTTGGCTGC 1740  
QY 1741 AGGCATTAAGGATTAAGGATTAATCTATCTACAGAAAAGACATTCCTTAAGCATGGG 1800  
DB 1741 AGGCATTAAGGATTAAGGATTAATCTATCTACAGAAAAGACATTCCTTAAGCATGGG 1800  
QY 1801 ATCTTAACCTATCTAAAGGTTTCCTTCTCAAGAGATGCTCTGTTGGGAGAGAACCC 1860  
DB 1801 ATCTTAACCTATCTAAAGGTTTCCTTCTCAAGAGATGCTCTGTTGGGAGAGAACCC 1860  
QY 1861 CCAGCAAGATATGTACAGCAACATCCAGCTTCATGGCCAGAGGTGGGAGAAATCCGC 1920  
DB 1861 CCAGCAAGATATGTACAGCAACATCCAGCTTCATGGCCAGAGGTGGGAGAAATCCGC 1920  
QY 1921 CTCACAGAGAGAGCCCATATATATATGTGTGTGAGATCAAGAAATATGGCCAGATGTA 1980  
DB 1921 CTCACAGAGAGAGCCCATATATATATGTGTGTGAGATCAAGAAATATGGCCAGATGTA 1980  
QY 1981 CATGATGCCCTTGTGCAAAATATATACCAAGAGGTGGAGTTGAAAACCTAGACGAATG 2040  
DB 1981 CATGATGCCCTTGTGCAAAATATATACCAAGAGGTGGAGTTGAAAACCTAGACGAATG 2040  
QY 2041 AAAACCTGGCCACTTTAAAGAGAAAACGCTACCTCAGGATATTTGGTCATAA 2097  
DB 2041 AAAACCTGGCCACTTTAAAGAGAAAACGCTACCTCAGGATATTTGGTCATAA 2097

## RESULT 4

US-09-371-347-43  
Sequence 43, Application US/09371347  
Publication No. US20030082676A1  
GENERAL INFORMATION:  
APPLICANT: Roy A. Gravel et al.  
TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:  
TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
FILE REFERENCE: 50004/003003  
CURRENT APPLICATION NUMBER: US/09/371,347  
CURRENT FILING DATE: 1999-08-10  
PRIOR APPLICATION NUMBER: 60/071,622  
PRIOR FILING DATE: 1998-01-16  
PRIOR APPLICATION NUMBER: 09/232,028  
PRIOR FILING DATE: 1999-01-15  
NUMBER OF SEQ ID NOS: 51  
SOFTWARE: fastseq for windows version 4.0  
SEQ ID NO 43  
LENGTH: 2097  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-371-347-43

Query Match 99.9%; Score 2095.4; DB 12; Length 2097;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2096; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGAGAGAGTTTCTGTACTATATGCTACACAGCAGGACAGCAAGGCCATCGCAGAA 60  
DB 1 ATGAGAGAGTTTCTGTACTATATGCTACACAGCAGGACAGCAAGGCCATCGCAGAA 60  
QY 61 GAAATGTGAGCAACCTGTGTACATGGATTTTCTGCAGATCTTACTGATTTAGTGA 120  
DB 61 GAAATGTGAGCAACCTGTGTACATGGATTTTCTGCAGATCTTACTGATTTAGTGA 120  
QY 121 TCCGATTAAGTATGACCTTAACCAAGCAAGCTCTTGTGTTGTTGTTTCTACACG 180  
DB 121 TCCGATTAAGTATGACCTTAACCAAGCAAGCTCTTGTGTTGTTGTTTCTACACG 180  
QY 181 GGCACGGAGACCCACCGACACAGCCCGCAAGTTGTTAAGAAATACAGAACCAACA 240  
DB 181 GGCACGGAGACCCACCGACACAGCCCGCAAGTTGTTAAGAAATACAGAACCAACA 240

QY 241 CTGCGGTTGATTTCTTTGCTACACCTGGCGTATGGGTACTGGGTCTGGGTATTCAGA 300  
DB 241 CTGCGGTTGATTTCTTTGCTACACCTGGCGTATGGGTACTGGGTCTGGGTATTCAGA 300  
QY 301 TACACCTACTTTTGCATAGGGGAGATTAATGATAAAGCACTTCAAGCTTGGAGCC 360  
DB 301 TACACCTACTTTTGCATAGGGGAGATTAATGATAAAGCACTTCAAGCTTGGAGCC 360  
QY 361 CGGCATTTCTATGACACTGAGACATGAGATGACTGTAGGTTTGAACCTTGTGTTGAG 420  
DB 361 CGGCATTTCTATGACACTGAGACATGAGATGACTGTAGGTTTGAACCTTGTGTTGAG 420  
QY 421 CGGTGATTTGCTGAGCTCTGGCCAGCCCTGAGAAACATTTTAAGTCAAGCAGAGACA 480  
DB 421 CGGTGATTTGCTGAGCTCTGGCCAGCCCTGAGAAACATTTTAAGTCAAGCAGAGACA 480  
QY 481 GAGGAGATTAAGTGGCCACTCCCGTGGCATCCATCCCTTGAAGACAGACCTTGTG 540  
DB 481 GAGGAGATTAAGTGGCCACTCCCGTGGCATCCATCCCTTGAAGACAGACCTTGTG 540  
QY 541 AAGTCAGAGCTGCTACACATTTGAATCTCAAGTCGAGCTTCTGAGATTCAGATGAGA 600  
DB 541 AAGTCAGAGCTGCTACACATTTGAATCTCAAGTCGAGCTTCTGAGATTCAGATGAGA 600  
QY 601 AGAAGGATTTCTGAGGTTTGAAGCAAAATGCGATGACAGCAACCAATCCATGTTGTA 660  
DB 601 AGAAGGATTTCTGAGGTTTGAAGCAAAATGCGATGACAGCAACCAATCCATGTTGTA 660  
QY 661 ATGAGAGCTTTGAGTCTACCTTACCCGTTGCGGTACCCCACTCTCACAGCCTCTG 720  
DB 661 ATGAGAGCTTTGAGTCTACCTTACCCGTTGCGGTACCCCACTCTCACAGCCTCTG 720  
QY 721 AATATTCCTGTTTACCCCGAGAAATTTTACAGTACATCTGAGAGATCTTGGCCAG 780  
DB 721 AATATTCCTGTTTACCCCGAGAAATTTTACAGTACATCTGAGAGATCTTGGCCAG 780  
QY 781 GAGGAAGCAACTATCTGAGCTGAGATTCAGAGATTCAGATTCAGATTCAGATTCAG 840  
DB 781 GAGGAAGCAACTATCTGAGCTGAGATTCAGAGATTCAGATTCAGATTCAGATTCAG 840  
QY 841 GCAGTTCAACTTACTACGATGATGCAATTAACCACTCTGCTGTAGATTTGACAT 900  
DB 841 GCAGTTCAACTTACTACGATGATGCAATTAACCACTCTGCTGTAGATTTGACAT 900  
QY 901 TCAATACAGACTTTTCTATCAGCTGAGATGCTTCAAGCTGATCTGCTTAACAGT 960  
DB 901 TCAATACAGACTTTTCTATCAGCTGAGATGCTTCAAGCTGATCTGCTTAACAGT 960  
QY 961 GATTCGAGGTACAAAGCCTACTCCAAAGACTCAGCTTGAAGATTAAGAGAGCACTGC 1020  
DB 961 GATTCGAGGTACAAAGCCTACTCCAAAGACTCAGCTTGAAGATTAAGAGAGCACTGC 1020  
QY 1021 GTCCCTTTGAAATAAAGGAGACACAAAGAAAGAGAGCTACCTTACCCAGCATATA 1080  
DB 1021 GTCCCTTTGAAATAAAGGAGACACAAAGAAAGAGAGCTACCTTACCCAGCATATA 1080  
QY 1081 CCTGCGGATGTTCTCTCCAGTTTATTTTACTGTTGTTTAAATCCGAGCAATTCCT 1140  
DB 1081 CCTGCGGATGTTCTCTCCAGTTTATTTTACTGTTGTTTAAATCCGAGCAATTCCT 1140  
QY 1141 AAAAAGCATTTTGGAGCCCTTGTGACTATACAGAGTACAGTCTGAAAAGCCAGG 1200  
DB 1141 AAAAAGCATTTTGGAGCCCTTGTGACTATACAGAGTACAGTCTGAAAAGCCAGG 1200  
QY 1201 CTACAGAGCTGTGAGTAAACAAAGGGCAGCCGATTTATAGCCGTTTGTACAGAGATGCC 1260  
DB 1201 CTACAGAGCTGTGAGTAAACAAAGGGCAGCCGATTTATAGCCGTTTGTACAGAGATGCC 1260  
QY 1261 TGTGCTGCTGTTGATGATCTCTCTGCTGCTTCTTCTTGGCAGCAGCAGCTCACTGTC 1320  
DB 1261 TGTGCTGCTGTTGATGATCTCTCTGCTGCTTCTTCTTGGCAGCAGCAGCTCACTGTC 1320



QY	1321	CTGCTGCAAACTCTTCTCTAAATCTCAACCCAGACCAATTCGTGTGAGCTCAAGTTTA	1380
Db	1321	CTGCTGCAAACTCTTCTCTAAATCTCAACCCAGACCAATTCGTGTGAGCTCAAGTTTA	1380
QY	1381	TTTTCACCCAGAAAGCTCCATTTTGTCTTCAACATTGTGGAATTTCTGTACAGCCACA	1440
Db	1381	TTTTCACCCAGAAAGCTCCATTTTGTCTTCAACATTGTGGAATTTCTGTACAGCCACA	1440
QY	1441	ACACAGGTTCTGGCGAAGGAGATGTATACAGAGCTGGCTGGCTGTGTGCTTTCAGTT	1500
Db	1441	ACACAGGTTCTGGCGAAGGAGATGTATACAGAGCTGGCTGGCTGTGTGCTTTCAGTT	1500
QY	1501	CTTCAGCCAAACATACATATGCATGCCATGAGACAGCGGGAAAGCCCTGGCTCTCAAGATA	1560
Db	1501	CTTCAGCCAAACATACATATGCATGCCATGAGACAGCGGGAAAGCCCTGGCTCTCAAGATA	1560
QY	1561	TTCCATCTCTCTCTGCAACAACAATTTCTTCCACTTACCACATATGACCCCTCAATCCCATC	1620
Db	1561	TTCCATCTCTCTCTGCAACAACAATTTCTTCCACTTACCACATATGACCCCTCAATCCCATC	1620
QY	1621	ATTAATGGTGGGCTCCAGAACCCGGCATAGCCCGCTTATTTGGGTCTCTACAACATAGAGAG	1680
Db	1621	ATTAATGGTGGGCTCCAGAACCCGGCATAGCCCGCTTATTTGGGTCTCTACAACATAGAGAG	1680
QY	1681	AAATCTCCAAAGAACCAACCCAGATGAGAAATTTTGGAGCATGCTCTCTTAAAGCATGGG	1740
Db	1681	AAATCTCCAAAGAACCAACCCAGATGAGAAATTTTGGAGCATGCTCTCTTAAAGCATGGG	1740
QY	1741	AGGCATTAAGATTAAGAGATTTATCTATTCAGAAAAGAGTCAGACACTTTCCTTAAGCATGGG	1800
Db	1741	AGGCATTAAGATTAAGAGATTTATCTATTCAGAAAAGAGTCAGACACTTTCCTTAAGCATGGG	1800
QY	1801	ATCTTAACTCATCTAAAGGTTTCCCTTCTCAAGAGATCTCCTGTGGGGAGAGAAAGACC	1860
Db	1801	ATCTTAACTCATCTAAAGGTTTCCCTTCTCAAGAGATCTCCTGTGGGGAGAGAAAGACC	1860
QY	1861	CCACCAAGATATGTACAAAGAACATCAGCTTATGCGCAGACAGGTGGCGAAGAACTCTC	1920
Db	1861	CCACCAAGATATGTACAAAGAACATCAGCTTATGCGCAGACAGGTGGCGAAGAACTCTC	1920
QY	1921	CTCCAGAGAAAGCGCCATATTTAACTGTGTGTGAGATCCAAAGAAATATGGCCAGAGATGTA	1980
Db	1921	CTCCAGAGAAAGCGCCATATTTAACTGTGTGTGAGATCCAAAGAAATATGGCCAGAGATGTA	1980
QY	1981	CATCATGCCCCCTGTGCAAAATTAATAAGCAAGAGGTTGAGATGTGAAAACCTAAGAGCAATG	2040
Db	1981	CATCATGCCCCCTGTGCAAAATTAATAAGCAAGAGGTTGAGATGTGAAAACCTAAGAGCAATG	2040
QY	2041	AAACCCCTGGCCACTTTAAAGAAAGAAAGCGCTACCTCTCAGATATTTGGTCAATA	2097
Db	2041	AAACCCCTGGCCACTTTAAAGAAAGAAAGCGCTACCTCTCAGATATTTGGTCAATA	2097

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; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-371-347-45

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Query Match	99.28;	Score 2081;	DB 12;	Length 2094;
Best Local Similarity	99.98;	Pred. No. 0;		
Matches 2094;	Conservative	0;	Mismatches 0;	Indels 3; Gaps 1

QY	1	ATGAGGAGGTTTCGTTACTATTAATGCTACACAGCAGGAGCAGCGCAAGGCGCATGCGCAGAA	60
Db	1	ATGAGGAGGTTTCGTTACTATTAATGCTACACAGCAGGAGCAGCGCAAGGCGCATGCGCAGAA	60
QY	61	GAAATGTGTGAGCAGACTGTGTGCTACATGAGATTTTCTGCAGATCTTCACTGTATTAGTCAA	120
Db	61	GAAATGTGTGAGCAGACTGTGTGCTACATGAGATTTTCTGCAGATCTTCACTGTATTAGTCAA	120
QY	121	TCCGATTAAGTATGACCTAAACCGAAACACCTCTCTGTGTTGGTGGTTTACACACG	180
Db	121	TCCGATTAAGTATGACCTAAACCGAAACACCTCTCTGTGTTGGTGGTTTACACACG	180
QY	181	GGCACCAGGAGACCCACCCGACACAGCCCGCAAGTTTGTAAAGAAATACAGAACCAACA	240
Db	181	GGCACCAGGAGACCCACCCGACACAGCCCGCAAGTTTGTAAAGAAATACAGAACCAACA	240
QY	241	CTGCCGGTGAATTTCTTCTTGTCTCACCCTGGGTATGGGTACTCTGCGGTCTCGGTGATTACAGA	300
Db	241	CTGCCGGTGAATTTCTTCTTGTCTCACCCTGGGTATGGGTACTCTGCGGTCTCGGTGATTACAGA	300
QY	301	TACACCTACTTTTGCATATGAGGGGGGGAAGATATTATATAACACATTCACAGACTTGGAGCC	360
Db	301	TACACCTACTTTTGCATATGAGGGGGGGAAGATATTATATAACACATTCACAGACTTGGAGCC	360
QY	361	CGGCATTTCTATGACACTGACATGACAGATGACTGTAGGTTTGAACCTTGTGGTTGAG	420
Db	361	CGGCATTTCTATGACACTGACATGACAGATGACTGTAGGTTTGAACCTTGTGGTTGAG	420
QY	421	CCGTGGATTGTGTGACCTCTGTGGCCAGCCCTCAGAAAGCATTTTATAGTCAAGCAGAGACAA	480
Db	421	CCGTGGATTGTGTGACCTCTGTGGCCAGCCCTCAGAAAGCATTTTATAGTCAAGCAGAGACAA	480
QY	481	GAGAGAGATTAATGTGGCGACCTCCGGTGGCATCACCTGCATCTTGAAGACAGACTTGTG	540
Db	481	GAGAGAGATTAATGTGGCGACCTCCGGTGGCATCACCTGCATCTTGAAGACAGACTTGTG	540
QY	541	AAGTCAGAGCTGTACACATTTGAATCTCAAGTCAGCTTCAGATTCGATGATTCAGAA	600
Db	541	AAGTCAGAGCTGTACACATTTGAATCTCAAGTCAGCTTCAGATTCGATGATTCAGAA	600
QY	601	AGAAAGGATTTCTGAGGTTTGAAGCAAAATGCAATGAAACACAAACCAATCCAAATGTTGTA	660
Db	601	AGAAAGGATTTCTGAGGTTTGAAGCAAAATGCAATGAAACACAAACCAATCCAAATGTTGTA	660
QY	661	ATTGAAGACTTTGAGTCTCTCACTTACCCTGTCCGTATACCCGTTCCGGTACCCCACTCTACAAGCCTCTCTG	720
Db	661	ATTGAAGACTTTGAGTCTCTCACTTACCCTGTCCGTATACCCGTTCCGGTACCCCACTCTACAAGCCTCTCTG	720
QY	721	AATATTCCTGTGTACCCCGAGAAATTTTACAGGTACATCTGCAGAGATCTTGTGGCCAG	780
Db	721	AATATTCCTGTGTACCCCGAGAAATTTTACAGGTACATCTGCAGAGATCTTGTGGCCAG	780
QY	781	GAGGAAGCCAGATGATCTGTGACTTCAAGCAGATCAGTTTTTCAAGTCCAAATTTCAAG	840
Db	781	GAGGAAGCCAGATGATCTGTGACTTCAAGCAGATCAGTTTTTCAAGTCCAAATTTCAAG	840
QY	841	GCACTTCAACTTATAGGAATGATGCAATAAACCACTCTGCTGTGTGAATTTGCAACTT	900
Db	841	GCACTTCAACTTATAGGAATGATGCAATAAACCACTCTGCTGTGTGAATTTGCAACTT	900
QY	901	TCAAAATACAGACTTTTCTCTATCAGCTCGAGAGATGCTTTACAGCTGATCTGCCCTAACAGT	960
Db	901	TCAAAATACAGACTTTTCTCTATCAGCTCGAGAGATGCTTTACAGCTGATCTGCCCTAACAGT	960
QY	961	GATTCGAGGTACAAAGCCTACTCTCAAAGACTGACGTTGAAGATAAAGAGAGCACTGC	1020



|||||  
Db GATCTGAGGTACAAAGCTACTCCAAAGACTGCAGCTTGAAGATTAAGAGAGACACTGC 1020  
Oy 961  
1021 GTCTTTTGAAGAAATGAAGGACACAAAGAAAGAGAGTACTTACCACCATATA 1080  
Db 1021 GTCTTTTGAAGAAATGAAGGACACAAAGAAAGAGTACTTACCACCATATA 1080  
Oy 1081 CCTCGGAGATGTCTCTCCAGTTCATTTTACCTGCTGTCTTGAATCCGAGCAATTCCT 1140  
Db 1081 CCTCGGAGATGTCTCTCCAGTTCATTTTACCTGCTGTCTTGAATCCGAGCAATTCCT 1140  
Oy 1141 AAAAGGCATTTTGGCGAGCCCTTGTGACTATACAGTGAAGTCTGAAAGCGCAGG 1200  
Db 1141 AAAAGGCATTTTGGCGAGCCCTTGTGACTATACAGTGAAGTCTGAAAGCGCAGG 1200  
Oy 1201 CTACAGAGCTGTGCAGTAACCAAGGGGACCCCATATATACCCTTGTGTACAGATGCC 1260  
Db 1201 CTACAGAGCTGTGCAGTAACCAAGGGGACCCCATATATATACCCTTGTGTACAGATGCC 1260  
Oy 1261 TGTGCTGCTGTGTGATCTCTCTGCTGCTTCCCTTCTTGCAGCCACCTCAGTCTC 1320  
Db 1261 TGTGCTGCTGTGTGATCTCTCTGCTGCTTCCCTTCTTGCAGCCACCTCAGTCTC 1320  
Oy 1321 CTGCTCGAATCTTCTTAACTTCAACCCAGACCATATTCGTGTGCAAGCTCAAGTTTA 1380  
Db 1321 CTGCTCGAATCTTCTTAACTTCAACCCAGACCATATTCGTGTGCAAGCTCAAGTTTA 1380  
Oy 1381 TTTTACCAGGAAAGCTTCATTTTGTCTTCAACATGTGTGAATTTCTCTACGCCCA 1440  
Db 1381 TTTTACCAGGAAAGCTTCATTTTGTCTTCAACATGTGTGAATTTCTCTACGCCCA 1440  
Oy 1441 ACAGAGGTTCTGCGAAGGAGTATGTACAGGCTGCGGCTTGTGTGCTTCACTT 1500  
Db 1441 ACAGAGGTTCTGCGAAGGAGTATGTACAGGCTGCGGCTTGTGTGCTTCACTT 1500  
Oy 1501 CTTGAGCCAAACATACATGATCCATGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1560  
Db 1501 CTTGAGCCAAACATACATGATCCATGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1560  
Oy 1561 TCCATCTCTCTGCAACAAATTTCTTCCATTTACAGATGAGAGAGAGAGAGAGAGAG 1620  
Db 1561 TCCATCTCTCTGCAACAAATTTCTTCCATTTACAGATGAGAGAGAGAGAGAGAGAG 1620  
Oy 1621 ATAAATGTGTGCTGCAAG 1680  
Db 1621 ATAAATGTGTGCTGCAAG 1680  
Oy 1681 AAACCTCAAGAAACACCCAGATGGAATTTTGGAGCAATGTGGTTTGTGGCTGC 1740  
Db 1681 AAACCTCAAGAAACACCCAGATGGAATTTTGGAGCAATGTGGTTTGTGGCTGC 1740  
Oy 1741 AGGATAGAGATAGGAGATATCTATTCAGAAAGAGCTCAGACATTTCTTACAGATGG 1800  
Db 1741 AGGATAGAGATAGGAGATATCTATTCAGAAAGAGCTCAGACATTTCTTACAGATGG 1800  
Oy 1801 ATCTTAATCTATTAAGAGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAGAGAG 1860  
Db 1801 ATCTTAATCTATTAAGAGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAGAGAG 1860  
Oy 1861 AAACCTCAAGAAACACCCAGATGGAATTTTGGAGCAATGTGGTTTGTGGCTGC 1920  
Db 1861 AAACCTCAAGAAACACCCAGATGGAATTTTGGAGCAATGTGGTTTGTGGCTGC 1920  
Oy 1921 CTCAGAGGAG 1980  
Db 1921 CTCAGAGGAG 1980  
Oy 1981 CATGATGCCCTTGTGCAAAATATAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040  
Db 1981 CATGATGCCCTTGTGCAAAATATAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040  
Oy 2041 AAAACCTGCGCACTTTTAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2097  
Db 2041 AAAACCTGCGCACTTTTAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2097

Db 2038 AAAACCTGCGCACTTTTAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2094  
RESULT 6  
US-09-371-347-47  
; Sequence 47, Application US/09371347  
; Publication No. US2003082676A1  
; GENERAL INFORMATION:  
; APPLICANT: Roy A. Gravel et al.  
; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE;  
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
; FILE REFERENCE: 5004/003003  
; CURRENT APPLICATION NUMBER: US/09/371, 347  
; CURRENT FILING DATE: 1999-08-10  
; PRIOR APPLICATION NUMBER: 60/071,622  
; PRIOR FILING DATE: 1998-01-16  
; PRIOR APPLICATION NUMBER: 09/232,028  
; PRIOR FILING DATE: 1999-01-15  
; NUMBER OF SEQ ID NOS: 51  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 47  
; LENGTH: 2093  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-371-347-47  
Query Match 99.1%; Score 2079; DB 12; Length 2093;  
Best Local Similarity 99.8%; Pred. No. 0;  
Matches 2093; Conservative 0; Mismatches 0; Indels 4; Gaps 1;  
Oy 1 ATGAGAGAGTTTCTGTTACTATATGCTACACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 60  
Db 1 ATGAGAGAGTTTCTGTTACTATATGCTACACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 60  
Oy 61 GAAATGTGTGAGCAAGCTGTGTACATGATTTTCTGAGATCTTCACTGATTAATGAA 120  
Db 61 GAAATGTGTGAGCAAGCTGTGTACATGATTTTCTGAGATCTTCACTGATTAATGAA 120  
Oy 121 TCCGATAGTATGAGCTTAAAG 180  
Db 121 TCCGATAGTATGAGCTTAAAG 180  
Oy 181 GGCACCGGAG 240  
Db 181 GGCACCGGAG 240  
Oy 241 CTGCGGTTGATTTTCTTGTCTACCTGCGGATGATGGTCTGCTGATTCAGAA 300  
Db 241 CTGCGGTTGATTTTCTTGTCTACCTGCGGATGATGGTCTGCTGATTCAGAA 300  
Oy 301 TACACCTACTTTTGCATGAG 360  
Db 301 TACACCTACTTTTGCATGAG 360  
Oy 361 CGGCAATTTCTTATGACATGAG 420  
Db 361 CGGCAATTTCTTATGACATGAG 420  
Oy 421 CCGTGATTTGCTGCACTGTGCGAGCCCTCAGAAAGCAATTTTGTAGTCAAGAGAGAGAGAG 480  
Db 421 CCGTGATTTGCTGCACTGTGCGAGCCCTCAGAAAGCAATTTTGTAGTCAAGAGAGAGAGAG 480  
Oy 481 GAGGAGATAG 540  
Db 481 GAGGAGATAG 540  
Oy 541 AAGTCAGAGCTGCTACATTAATCTCAAGTGAAGTCTTGAATTCAGATTCAGAGA 600  
Db 541 AAGTCAGAGCTGCTACATTAATCTCAAGTGAAGTCTTGAATTCAGATTCAGAGA 600  
Oy 601 AGAAAGATTTCTGAGTTTGAAGCAAAATGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 660  
Db 601 AGAAAGATTTCTGAGTTTGAAGCAAAATGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 660

Db 601 AGAAGGATTCGAGCTTTTGAAGCAAAATCGAGTCAACAGACCAATCCATGTTGTA 660  
 QY 661 ATTGAAGACTTGGAGTCTCTCACTTACCCGCTGGGATACCCCACTCTCACAGCCTCTCTG 720  
 Db 661 ATTGAAGACTTGGAGTCTCTCACTTACCCGCTGGGATACCCCACTCTCACAGCCTCTCTG 720  
 QY 721 AATATTCCTGGTTTACCCCAATATTTACAGTACATCTGCAGAGAGTCTCTGGCCAG 780  
 Db 721 AATATTCCTGGTTTACCCCAATATTTACAGTACATCTGCAGAGAGTCTCTGGCCAG 780  
 QY 781 GAGGAAGGCCAATATCTGTGACTTCAGAGATCCAGTTTTCAGTGGCAATTTCAAG 840  
 Db 781 GAGGAAGGCCAATATCTGTGACTTCAGAGATCCAGTTTTCAGTGGCAATTTCAAG 840  
 QY 841 GCAGTTCACATTAACATGATGCGCATATAAACCACTCTCTGGTAGAATTTGACAT 900  
 Db 841 GCAGTTCACATTAACATGATGCGCATATAAACCACTCTCTGGTAGAATTTGACAT 900  
 QY 901 TCAATATACAGACTTTTCTATCAGCCTGGAGATGGCTTCAGGCTGATCTGCCCTTAACAT 960  
 Db 901 TCAATATACAGACTTTTCTATCAGCCTGGAGATGGCTTCAGGCTGATCTGCCCTTAACAT 960  
 QY 961 GATTCGTGAGTCAAAAGCCTTACTCCAAAGACTGCAGCTTGAAGATAAAAGAGAGCACTGC 1020  
 Db 961 GATTCGTGAGTCAAAAGCCTTACTCCAAAGACTGCAGCTTGAAGATAAAAGAGAGCACTGC 1020  
 QY 1021 GTCCCTTTGAAAATATTAAGCGAGACACAAAGAAAGAGAGCTTACTTACCCAGCATATA 1080  
 Db 1021 GTCCCTTTGAAAATATTAAGCGAGACACAAAGAAAGAGAGCTTACTTACCCAGCATATA 1080  
 QY 1081 CCTGGGAGATGTTCTCTCAGTTCATTTTACCTGTGCTGAANTCCGACCAATTCCT 1140  
 Db 1081 CCTGGGAGATGTTCTCTCAGTTCATTTTACCTGTGCTGAANTCCGACCAATTCCT 1140  
 QY 1141 AAAAAAGCATTTTTCGAGCCCTTGTGACATATACAGTGCAGTGTGAAGAGCGCAGG 1200  
 Db 1141 AAAAAAGCATTTTTCGAGCCCTTGTGACATATACAGTGCAGTGTGAAGAGCGCAGG 1200  
 QY 1201 CTACAGAGCTGTGAGTAACCAAGGGGAGCGCCGATTTATAGCCGCTTTGTACAGATGCC 1260  
 Db 1201 CTACAGAGCTGTGAGTAACCAAGGGGAGCGCCGATTTATAGCCGCTTTGTACAGATGCC 1260  
 QY 1261 TGTGCTCTCTTGTGATCTCTCTCCTCTGCTTCCCTTCTTGCCAGCCACCACTGCTC 1320  
 Db 1261 TGTGCTCTCTTGTGATCTCTCTCCTCTGCTTCCCTTCTTGCCAGCCACCACTGCTC 1320  
 QY 1321 CTGCTCGAATCTTCTTAACCTCAACCAGACCATATTCGTGTGCAAGTCAAGTTTA 1380  
 Db 1321 CTGCTCGAATCTTCTTAACCTCAACCAGACCATATTCGTGTGCAAGTCAAGTTTA 1380  
 QY 1381 TTTACCCAGGAAAGCTCCATTTTGTCTTCAACATTTGGGAATTTCTCTACTGCCACA 1440  
 Db 1381 TTTACCCAGGAAAGCTCCATTTTGTCTTCAACATTTGGGAATTTCTCTACTGCCACA 1440  
 QY 1441 ACAGAGGTTCTGCGGAAGGAGTATGTACAGGCTGGGCTTGTGGTGGCTTCAAT 1500  
 Db 1441 ACAGAGGTTCTGCGGAAGGAGTATGTACAGGCTGGGCTTGTGGTGGCTTCAAT 1500  
 QY 1501 CTTACAGCCAAACATACATGATCCCATGAAAGACAGCGGAAAGCCCTGCTCTAAGATA 1560  
 Db 1501 CTTACAGCCAAACATACATGATCCCATGAAAGACAGCGGAAAGCCCTGCTCTAAGATA 1560  
 QY 1561 TCCATCTCTCTGCAACAACAATTTCTTCACTTACAGATGACCCCTCAATCCCATC 1620  
 Db 1561 TCCATCTCTCTGCAACAACAATTTCTTCACTTACAGATGACCCCTCAATCCCATC 1620  
 QY 1621 ATAAATGATGCTCAGAAACCGGATAGCCCGTTTATTTGGTCTCTCAACATAGAAAG 1680  
 Db 1621 ATAAATGATGCTCAGAAACCGGATAGCCCGTTTATTTGGTCTCTCAACATAGAAAG 1680  
 QY 1681 AAATCTCAAGAACACACCGAGATGGAATTTTGGAGCAATGTGTTTGGTCTGC 1740  
 Db 1681 AAATCTCAAGAACACACCGAGATGGAATTTTGGAGCAATGTGTTTGGTCTGC 1740  
 QY 1741 AAATCTCAAGAACACACCGAGATGGAATTTTGGAGCAATGTGTTTGGTCTGC 1740  
 Db 1741 AAATCTCAAGAACACACCGAGATGGAATTTTGGAGCAATGTGTTTGGTCTGC 1740

QY 1741 AGGCATTAAGATAGGATTTATCTATTCAGAAAAAGAGCTCAGACATTTCTTAAGCATGG 1800  
 Db 1737 AGGCATTAAGATAGGATTTATCTATTCAGAAAAAGAGCTCAGACATTTCTTAAGCATGG 1796  
 QY 1801 ATCTTAATCTCATTAAGGTTTCTCTTCTCAGAGATGCTCTGTTGGGAGAGGAGACC 1860  
 Db 1797 ATCTTAATCTCATTAAGGTTTCTCTTCTCAGAGATGCTCTGTTGGGAGAGGAGACC 1856  
 QY 1861 CCAGAAAGTATGTCAAGACACATCCAGCTTCATGGCCAGAGTGGCGGATCTC 1920  
 Db 1857 CCAGAAAGTATGTCAAGACACATCCAGCTTCATGGCCAGAGTGGCGGATCTC 1916  
 QY 1921 CTCAGAGAAAGCGCCATATTTATGTGTGAGATGCAAGAAATATGCGCAAGATGTA 1980  
 Db 1917 CTCAGAGAAAGCGCCATATTTATGTGTGAGATGCAAGAAATATGCGCAAGATGTA 1976  
 QY 1981 CATGATGCCCTTGTGCAATTAATAGCAAGAGTTGAGATTGAAAACTAGAACATG 2040  
 Db 1977 CATGATGCCCTTGTGCAATTAATAGCAAGAGTTGAGATTGAAAACTAGAACATG 2036  
 QY 2041 AAAACCTGGCCACTTTAAAGAGAAAGAGCTCTCTTCAAGATATTTGGCATAA 2097  
 Db 2037 AAAACCTGGCCACTTTAAAGAGAAAGAGCTCTCTTCAAGATATTTGGCATAA 2093

RESULT 7  
 US-09-909-567B-38  
 ; Sequence 38, Application US/09909567B  
 ; Publication No. US2003022257A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Macina, Roberto A.  
 ; APPLICANT: Nair, Manoj  
 ; APPLICANT: Chen, Seiyu  
 ; TITLE OF INVENTION: Compositions and Methods Relating to Lung Specific Genes  
 ; FILE REFERENCE: DEX-0214  
 ; CURRENT APPLICATION NUMBER: US/09/909,567B  
 ; PRIOR FILING DATE: 2001-07-20  
 ; PRIOR APPLICATION NUMBER: 60/219,834  
 ; NUMBER OF SEQ ID NOS: 56  
 ; SOFTWARE: PatentIn version 3.1  
 ; SEQ ID NO: 38  
 ; LENGTH: 2475  
 ; TYPE: DNA  
 ; ORGANISM: Homo sapien  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; LOCATION: (1001)..(1001)  
 ; OTHER INFORMATION: a, c, g or t  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; LOCATION: (1011)..(1011)  
 ; OTHER INFORMATION: a, c, g or t  
 ; US-09-909-567B-38

Query Match 8.3%; Score 174.4; DB 12; Length 2475;  
 Best Local Similarity 96.7%; Pred. No. 1.2e-44;  
 Matches 178; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 510 ATCACTGTCATCTTGGAGAGACACTTGTGAATCAGAGCTGTACACATTTGATCTCA 569  
 Db 1 ATCACTGTCATCTTGGAGAGACACTTGTGAATCAGAGCTGTACACATTTGATCTCA 60  
 QY 570 AGTCGAGCTTGTGATTCGATGATTCAGAGAAAGATTCAGAGTTTGAAGCAAAA 629  
 Db 61 AGTCGAGCTTGTGATTCGATGATTCAGAGAAAGATTCAGAGTTTGAAGCAAAA 120  
 QY 630 TGCAGTGAACGACCAATCCATGTTGTAATTAAGAGACTTTGAGTCTTACCTACCCG 689  
 Db 121 TGCAGTGAACGACCAATCCATGTTGTAATTAAGAGACTTTGAGTCTTACCGATCTC 180  
 QY 690 TTCG 693

Db 181 TTGC 184

## RESULT 8

US-09-917-800A-1351  
; Sequence 1351, Application US/09917800A  
; Patent No. US20020119462A1  
; GENERAL INFORMATION:  
; APPLICANT: Mendrick, Donna  
; APPLICANT: Porter, Mark  
; APPLICANT: Johnson, Kory  
; APPLICANT: Castle, Arthur  
; APPLICANT: Elashoff, Michael  
; APPLICANT: Gene Logic, Inc.  
; TITLE OF INVENTION: Molecular Toxicology Modeling  
; FILE REFERENCE: 44921-5038-US  
; CURRENT APPLICATION NUMBER: US/09/917,800A  
; TITLE OF INVENTION: Molecular Toxicology Modeling  
; FILE REFERENCE: 44921-5038-US  
; CURRENT APPLICATION NUMBER: US/09/917,800A  
; PRIOR FILING DATE: 2001-07-31  
; PRIOR APPLICATION NUMBER: US 60/222,040  
; PRIOR FILING DATE: 2000-07-31  
; PRIOR APPLICATION NUMBER: US 60/222,880  
; PRIOR FILING DATE: 2000-11-02  
; PRIOR APPLICATION NUMBER: US 60/290,029  
; PRIOR FILING DATE: 2001-05-11  
; PRIOR APPLICATION NUMBER: US 60/290,645  
; PRIOR FILING DATE: 2001-05-15  
; PRIOR APPLICATION NUMBER: US 60/292,336  
; PRIOR FILING DATE: 2001-05-22  
; PRIOR APPLICATION NUMBER: US 60/295,798  
; PRIOR FILING DATE: 2001-06-06  
; PRIOR APPLICATION NUMBER: US 60/297,457  
; PRIOR FILING DATE: 2001-06-13  
; PRIOR APPLICATION NUMBER: US 60/298,884  
; PRIOR FILING DATE: 2001-06-19  
; PRIOR APPLICATION NUMBER: US 60/303,459  
; PRIOR FILING DATE: 2001-07-09  
; NUMBER OF SEQ ID NOS: 1740  
; SOFTWARE: Patentln Ver. 2.1  
; SEQ ID NO 1351  
; LENGTH: 1872  
; TYPE: DNA  
; ORGANISM: Rattus norvegicus  
; FEATURE:  
; OTHER INFORMATION: Genbank Accession No. US20020119462A1 E01524  
US-09-917-800A-1351

Query Match 4.2%; Score 88.6; DB 11; Length 1872;  
Best Local Similarity 56.2%; Pred. No. 4.5e-17;  
Matches 222; Conservative 0; Mismatches 149; Indels 24; Gaps 2;

1588 TTCCACTTACGAGTGAAGCCCTCAATCCCATATATGTTGGGTCCAGAACCGGATGATA 1647  
1387 TTCCGCTTGCCTTTCAAGTCCACACACGCTGTATCATGTGGGCCCCGGCAGTGGGATT 1446  
1648 GCCCGCTTATTTGGGTTCTCTACAACATAGAGAGAACTCCCAAGAACACCCAGATGGA 1707  
1447 GCCCTTTCATGGGCTTCATCCAGAACGAGCTTGGCTTGGAGAGCAAGGCAAGGAGG- 1504  
1708 AATTTTGGAGCAATGTGTTGTTTGGCTGCAGCATTAAGATAGGAGATTATCTATTC 1767  
1505 -TGGGAGAGAGAGCGCTATATCTATGCTGCGGCGCTCGAGTGAAGACTATCTGTAC 1560  
1768 AGAAAGAGCTCAACATTTCCCTTAAGCATGGATCTTAATCTAATGAAGTTCCCTC 1827  
1561 CGTAAAGAGCTAGAGCCCTTCCACAGAGAGCGTCCCTCACGAGCTTAATGTGCTTT 1620  
1828 TCAAGAGATGCTCTCTGTTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 1887  
1621 TCCG-----GGATC 1662  
1888 CAGCTTATGATC 1947

Db 1663 AAGAGAGACAGGAGAACCTGTGGAAGCTGATCCAGAGAGCGGTCCACATCTATGTG 1722  
1948 TGTGAGATGCAAAAGATATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 1982  
1723 TCCGGGAGATGCTCAATATATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 1757

## RESULT 9

US-09-917-800A-1397  
; Sequence 1397, Application US/09917800A  
; Patent No. US20020119462A1  
; GENERAL INFORMATION:  
; APPLICANT: Mendrick, Donna  
; APPLICANT: Porter, Mark  
; APPLICANT: Johnson, Kory  
; APPLICANT: Castle, Arthur  
; APPLICANT: Elashoff, Michael  
; APPLICANT: Gene Logic, Inc.  
; TITLE OF INVENTION: Molecular Toxicology Modeling  
; FILE REFERENCE: 44921-5038-US  
; CURRENT APPLICATION NUMBER: US/09/917,800A  
; PRIOR FILING DATE: 2001-07-31  
; PRIOR APPLICATION NUMBER: US 60/222,040  
; PRIOR FILING DATE: 2000-07-31  
; PRIOR APPLICATION NUMBER: US 60/222,880  
; PRIOR FILING DATE: 2000-11-02  
; PRIOR APPLICATION NUMBER: US 60/290,029  
; PRIOR FILING DATE: 2001-05-11  
; PRIOR APPLICATION NUMBER: US 60/290,645  
; PRIOR FILING DATE: 2001-05-15  
; PRIOR APPLICATION NUMBER: US 60/292,336  
; PRIOR FILING DATE: 2001-05-22  
; PRIOR APPLICATION NUMBER: US 60/295,798  
; PRIOR FILING DATE: 2001-06-06  
; PRIOR APPLICATION NUMBER: US 60/297,457  
; PRIOR FILING DATE: 2001-06-13  
; PRIOR APPLICATION NUMBER: US 60/298,884  
; PRIOR FILING DATE: 2001-06-19  
; PRIOR APPLICATION NUMBER: US 60/303,459  
; PRIOR FILING DATE: 2001-07-09  
; NUMBER OF SEQ ID NOS: 1740  
; SOFTWARE: Patentln Ver. 2.1  
; SEQ ID NO 1397  
; LENGTH: 2401  
; TYPE: DNA  
; ORGANISM: Rattus norvegicus  
; FEATURE:  
; OTHER INFORMATION: Genbank Accession No. US20020119462A1 M10068  
US-09-917-800A-1397

Query Match 4.2%; Score 88.6; DB 11; Length 2401;  
Best Local Similarity 56.2%; Pred. No. 5.4e-17;  
Matches 222; Conservative 0; Mismatches 149; Indels 24; Gaps 2;

1588 TTCCACTTACGAGTGAAGCCCTCAATCCCATATATGTTGGGTCCAGAACCGGATGATA 1647  
1556 TTCCGCTTGCCTTTCAAGTCCACACACGCTGTATCATGTGGGCCCCGGCAGTGGGATT 1615  
1648 GCCCGCTTATTTGGGTTCTCTACAACATAGAGAGAACTCCCAAGAACACCCAGATGGA 1707  
1447 GCCCTTTCATGGGCTTCATCCAGAACGAGCTTGGCTTGGAGAGCAAGGCAAGGAGG- 1673  
1708 AATTTTGGAGCAATGTGTTGTTTGGCTGCAGCATTAAGATAGGAGATTATCTATTC 1767  
1674 -TGGGAGAGAGAGCGCTATATCTATGCTGCGGCGCTCGAGTGAAGACTATCTGTAC 1729  
1768 AGAAAGAGCTCAACATTTCCCTTAAGCATGGATCTTAATCTAATGAAGTTCCCTC 1827  
1730 CGTAAAGAGCTAGAGCCCTTCCACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 1789  
1828 TCAAGAGATGCTCTCTGTTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 1887  
1790 TCCG-----GGATC 1831

QY 1648 GCCCGCTTTATTTGGTTCCTACAACTAGAGAACTCCAAAGAACACACCAGATGSA 1707





GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: July 29, 2003, 09:58:39 ; Search time 89.0595 Seconds

(without alignments)  
7221.032 Million cell updates/sec

Title: US-09-371-347A-1

Perfect score: 2097  
Sequence: 1 atgaggaggttctgttact.....ttcagatatattgtcataa 2097

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 441362 seqs, 153338381 residues

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-Processing: Minimum Match 0%

Maximum Match 100%  
Listing first 45 summaries

Database :

- 1: /cgn2\_6/ptodata/1/ina/5A\_COMB.seq:\*
- 2: /cgn2\_6/ptodata/1/ina/5B\_COMB.seq:\*
- 3: /cgn2\_6/ptodata/1/ina/6A\_COMB.seq:\*
- 4: /cgn2\_6/ptodata/1/ina/6B\_COMB.seq:\*
- 5: /cgn2\_6/ptodata/1/ina/PCTUS\_COMB.seq:\*
- 6: /cgn2\_6/ptodata/1/ina/Backfiles1.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2097	100.0	3259	4	US-09-318-448-23
2	386.4	18.4	390	4	US-08-905-223-71
3	63.6	3.0	4353	2	US-08-365-486A-18
4	63.6	3.0	4353	4	US-08-880-342-18
5	63.6	3.0	4780	2	US-08-365-486A-20
6	63.6	3.0	4780	3	US-09-123-708-3
7	63.6	3.0	4780	3	US-09-123-708-3
8	63.6	3.0	4780	4	US-08-880-342-20
9	57.2	2.7	5057	2	US-08-365-486A-12
10	57.2	2.7	5057	4	US-08-880-342-12
11	57.2	2.7	5108	4	US-07-642-002-1
12	53.6	2.6	1863	4	US-09-627-216A-13
13	52.8	2.5	1890	4	US-09-134-165A-113
14	50.2	2.4	1448	4	US-09-302-620B-82
15	49.2	2.3	4145	4	US-09-302-620B-82
16	46.2	2.2	7218	1	US-08-232-463-14
17	46	2.2	4206	4	US-09-302-620B-81
18	44	2.1	307	4	US-09-172-711-24
19	43.4	2.1	7218	4	US-08-232-463-14
20	40.6	1.9	382	4	US-08-976-259-78
21	39.6	1.9	4041	1	US-08-147-812-4
22	39.6	1.9	4110	3	US-09-123-708-1
23	39.6	1.9	4110	3	US-09-123-708-1
24	39.6	1.9	4165	1	US-08-147-812-6
25	36.6	1.7	3701	1	US-08-553-279-1
26	36.6	1.7	45546	4	US-09-146-053-6
27	36	1.7	4089	1	US-07-908-245-1

28	36	1.7	4097	3	US-09-123-708-5	Sequence 5, App1
29	36	1.7	4097	3	US-09-123-624-5	Sequence 5, App1
30	35.4	1.7	1296	4	US-09-134-001C-1501	Sequence 1501, Ap
31	34.2	1.6	1569	1	US-08-680-726A-57	Sequence 57, App1
32	34.2	1.6	1569	3	US-09-092-409-51	Sequence 51, App1
33	34.2	1.6	10592	1	US-08-680-726A-51	Sequence 51, App1
34	34.2	1.6	10592	3	US-08-680-726A-52	Sequence 52, App1
35	34.2	1.6	10592	3	US-09-092-409-51	Sequence 51, App1
36	34.2	1.6	10592	3	US-09-092-409-52	Sequence 52, App1
37	34	1.6	2233	3	US-08-257-073-4	Sequence 4, App1
38	33.8	1.6	1702	1	US-08-261-822A-14	Sequence 14, App1
39	33.8	1.6	1702	5	PCT-US95-07744A-14	Sequence 14, App1
40	33.8	1.6	4146	1	US-08-261-822A-15	Sequence 15, App1
41	33.8	1.6	4146	5	PCT-US95-07744A-15	Sequence 15, App1
42	33.2	1.6	2277	1	US-08-676-967-2	Sequence 2, App1
43	33.2	1.6	2277	1	US-08-676-974-2	Sequence 2, App1
44	33.2	1.6	2277	2	US-09-098-487-2	Sequence 2, App1
45	32.6	1.6	2193	4	US-09-427-261-2	Sequence 2, App1

ALIGNMENTS

RESULT 1  
US-09-318-448-23  
; Sequence 23, Application US/09318448  
; Patent No. 6210950  
; GENERAL INFORMATION:  
; APPLICANT: Johnson, William G.  
; APPLICANT: Steinhilber, Edward S.  
; TITLE OF INVENTION: METHODS FOR DIAGNOSING, PREVENTING, AND TREATING  
; FILE REFERENCE: 601-1-057  
; CURRENT APPLICATION NUMBER: US/09/318.448  
; CURRENT FILING DATE: 1999-05-25  
; NUMBER OF SEQ ID NOS: 46  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 23  
; LENGTH: 3259  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-318-448-23

Query Match 100.0%; Score 2097; DB 4; Length 3259;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2097; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	ATGAGGAGGTTTCTGTTACTATATGCTACACAGCAGGAGGCAAGGCCATCGCAGAA	60
DB	80	ATGAGGAGGTTTCTGTTACTATATGCTACACAGCAGGAGGCAAGGCCATCGCAGAA	139
QY	61	GAATGTGTCAGCAACTGTGGTACATGATTTTTCGACATCTTACATGATTAGTAA	120
DB	140	GAATGTGTCAGCAACTGTGGTACATGATTTTTCGACATCTTACATGATTAGTAA	199
QY	121	TTCGATATGATATGATACCTAAACCGAAGAGCTCTTGTGTGTTTACACAG	180
DB	200	TTCGATATGATATGATACCTAAACCGAAGAGCTCTTGTGTGTTTACACAG	259
QY	181	GGCAGCGAGAGCCACCGACAGCAGCCGCAAGTTTGAAGAAATACAGAACCAAGA	240
DB	260	GGCAGCGAGAGCCACCGACAGCAGCCGCAAGTTTGAAGAAATACAGAACCAAGA	319
QY	241	CTGCGCGTGTGATTTCTTCTGCTACCTCGCGGTATAGGTTCTGCGTATTCAGAA	300
DB	320	CTGCGCGTGTGATTTCTTCTGCTACCTCGCGGTATAGGTTCTGCGTATTCAGAA	379
QY	301	TACACCTACTTTTGAATGGGGGAGATATATGATAAAGCACTTCAAGAGTTGGAGCC	360
DB	380	TACACCTACTTTTGAATGGGGGAGATATATGATAAAGCACTTCAAGAGTTGGAGCC	439
QY	361	CGGCAATTTTATGACACTGAGACATGACATGACATGACATGACATGACATGACATG	420

Db 440 CGGATTTCTATGACATGACATGACATGACTGTAGATTAGAACTTGTGTGAG 499  
 QY 421 CCGTGGATTTGCTGACTGTGGCAGCCCTCAGAAAGCATTTTAAAGTCAGAGAGAGACA 480  
 Db 500 CCGTGGATTTGCTGACTGTGGCAGCCCTCAGAAAGCATTTTAAAGTCAGAGAGAGACA 559  
 QY 481 GAGGAGATTAAGTGGGCGACTCCCGGTGAGCATCCTGATCCTTGAAGAGAGACCTTGTG 540  
 Db 560 GAGGAGATTAAGTGGGCGACTCCCGGTGAGCATCCTGATCCTTGAAGAGAGACCTTGTG 619  
 QY 541 AAGTCAGAGCTGCTACACATTTGAATTCAGATCGAGCTTCTGAGATTCATGTTAGAGA 600  
 Db 620 AAGTCAGAGCTGCTACACATTTGAATTCAGATCGAGCTTCTGAGATTCATGTTAGAGA 679  
 QY 601 AGAAAGATTTGAGGTTTGAAGCAAAATGACGTAGACAGCAACCAATCCATGTTGTA 660  
 Db 680 AGAAAGATTTGAGGTTTGAAGCAAAATGACGTAGACAGCAACCAATCCATGTTGTA 739  
 QY 661 ATTGAAGACTTTGAGTCTCAGCTTACCCCTGCGTACCCCACTCTCAGAGCCCTCTG 720  
 Db 740 ATTGAAGACTTTGAGTCTCAGCTTACCCCTGCGTACCCCACTCTCAGAGCCCTCTG 799  
 QY 721 AATATTCCTGCTTACCCCAAGATATTACAGATCATCTGAGAGATCTCTTGGCCAG 780  
 Db 800 AATATTCCTGCTTACCCCAAGATATTACAGATCATCTGAGAGATCTCTTGGCCAG 859  
 QY 781 GAGGAAGCAAGTATCTGACTCAGAGATCCAGATTCAGTTCCTGCAATTCGCAATTTGAAG 840  
 Db 860 GAGGAAGCAAGTATCTGACTCAGAGATCCAGATTCAGTTCCTGCAATTCGCAATTTGAAG 919  
 QY 841 GCAGTTCAACTACTACAGATGATGCGCATTAAGAACCACTCTGCTGAGTAATTTGACATT 900  
 Db 920 GCAGTTCAACTACTACAGATGATGCGCATTAAGAACCACTCTGCTGAGTAATTTGACATT 979  
 QY 901 TCAAAATACAGACTTTTCTATCAGCTGAGATGCTTACAGGCTGATGCTGCTTACAGT 960  
 Db 980 TCAAAATACAGACTTTTCTATCAGCTGAGATGCTTACAGGCTGATGCTGCTTACAGT 1039  
 QY 961 GATTTGAGGTACAAAGCCTTACTCCAAAGACTGACAGCTTGAAGATTAAGAGAGCACTGC 1020  
 Db 1040 GATTTGAGGTACAAAGCCTTACTCCAAAGACTGACAGCTTGAAGATTAAGAGAGCACTGC 1099  
 QY 1021 GTCCCTTTTAAATTAAGGCACACACAAAGAAAGAGCTTACCTTACCCAGCATATA 1080  
 Db 1100 GTCCCTTTTAAATTAAGGCACACACAAAGAAAGAGCTTACCTTACCCAGCATATA 1159  
 QY 1081 CCTGGGAGTGTCTCTCCAGTTCATTTTACCTGCTGCTTGAATTCGAGCAATTCCT 1140  
 Db 1160 CCTGGGAGTGTCTCTCCAGTTCATTTTACCTGCTGCTTGAATTCGAGCAATTCCT 1219  
 QY 1141 AAAAAGCATTTTGTGAGCCCTTGTGAGCTATACAGTACAGTGTCTGAAAAAGCGCAG 1200  
 Db 1220 AAAAAGCATTTTGTGAGCCCTTGTGAGCTATACAGTACAGTGTCTGAAAAAGCGCAG 1279  
 QY 1201 CTACAGAGACTGTGACATTAACAAGGGGACGCCGATTAAGCCGCTTGTACAGATGCGC 1260  
 Db 1280 CTACAGAGACTGTGACATTAACAAGGGGACGCCGATTAAGCCGCTTGTACAGATGCGC 1339  
 QY 1261 TGTGCTGCTTGTGATGATCTCCGCGCTTCCCTTGTGACAGCCACCATGCTGTC 1320  
 Db 1340 TGTGCTGCTTGTGATGATCTCCGCGCTTCCCTTGTGACAGCCACCATGCTGTC 1399  
 QY 1321 CTGCTGGAACATCTTCTAACTTCAACCCAGACCATATTCGTGTCAGAGCTCAAGTTTA 1380  
 Db 1400 CTGCTGGAACATCTTCTAACTTCAACCCAGACCATATTCGTGTCAGAGCTCAAGTTTA 1459  
 QY 1381 TTTTCAACCCAGGAAGCTCATTGTTGCTTCAACATTTGGAATTTCTGTCTACTGCGACA 1440  
 Db 1460 TTTTCAACCCAGGAAGCTCATTGTTGCTTCAACATTTGGAATTTCTGTCTACTGCGACA 1519  
 QY 1441 ACAGAGGTTCTGCGGAAGGAGATATGATACAGGCTGCTGCTGTTGTTGCTTCAAGT 1500  
 Db 1520 ACAGAGGTTCTGCGGAAGGAGATATGATACAGGCTGCTGCTGTTGTTGCTTCAAGT 1579

QY 1501 CTTACGCCAACAATACATGATCCATCCATGAAGACAGCGGGAAGCCCTGCTCTAAGATA 1560  
 Db 1580 CTTACGCCAACAATACATGATCCATCCATGAAGACAGCGGGAAGCCCTGCTCTAAGATA 1639  
 QY 1561 TCCATCTCTCTGGAACAACAATTTCTTCACTTACAGATGACCCCTCAATCCCATC 1620  
 Db 1640 TCCATCTCTCTGGAACAACAATTTCTTCACTTACAGATGACCCCTCAATCCCATC 1699  
 QY 1621 ATATATGTTGGTTCAGAGAACCCGAGATAGCCCGTTATTGAGTCTCTACACATAGAG 1680  
 Db 1700 ATATATGTTGGTTCAGAGAACCCGAGATAGCCCGTTATTGAGTCTCTACACATAGAG 1759  
 QY 1681 AAATCCCAAGCAACACACCAGATGGAATTTTGAAGCAATGAGTTGTTTGGCTCC 1740  
 Db 1760 AAATCCCAAGCAACACACCAGATGGAATTTTGAAGCAATGAGTTGTTTGGCTCC 1819  
 QY 1741 AGGCATTAAGATTAAGGATTTATCTATTCAGAAAGACCTCAGACATTTCTTAAGCATGG 1800  
 Db 1820 AGGCATTAAGATTAAGGATTTATCTATTCAGAAAGACCTCAGACATTTCTTAAGCATGG 1879  
 QY 1801 ATCTTACTCATCTAAAGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAGCC 1860  
 Db 1880 ATCTTACTCATCTAAAGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAGCC 1939  
 QY 1861 CCAGCAAGTATGTACAGACACATCCAGCTTCATGGCCAGAGTGGCGAATCTCTC 1920  
 Db 1940 CCAGCAAGTATGTACAGACACATCCAGCTTCATGGCCAGAGTGGCGAATCTCTC 1999  
 QY 1921 CTCAGAGAACGCGCCATTTATGTTGTGTGAGATGCAAGATATATGCGCAAGATGTA 1980  
 Db 2000 CTCAGAGAACGCGCCATTTATGTTGTGTGAGATGCAAGATATATGCGCAAGATGTA 2059  
 QY 1981 CATGATGCCCTTGTGCAATTAATTAAGCAAGAGTTGGTGAATAAATCAAGCAATG 2040  
 Db 2060 CATGATGCCCTTGTGCAATTAATTAAGCAAGAGTTGGTGAATAAATCAAGCAATG 2119  
 QY 2041 AAACCCCTGGCACTTTAAAGAGAAAGCACTACCTTCAGATATTTGTCATATA 2097  
 Db 2120 AAACCCCTGGCACTTTAAAGAGAAAGCACTACCTTCAGATATTTGTCATATA 2176

RESULT 2  
 US-08-905-223-71  
 ; Sequence 71, Application US/08905223  
 ; Patent No. 622029  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Edwards, Jean-Baptiste D.  
 ; APPLICANT: Duclert, Aymeric  
 ; APPLICANT: Lacroix, Bruno  
 ; TITLE OF INVENTION: 5' ESTS FOR SECRETED PROTEINS  
 ; NUMBER OF SEQUENCES: 503  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Knodde, Martens, Olsson & Bear  
 ; STREET: 501 West Broadway  
 ; CITY: San Diego  
 ; STATE: California  
 ; COUNTRY: USA  
 ; ZIP: 92101-3505  
 ; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Floppy Disk  
 ; COMPUTER: IBM PC compatible  
 ; OPERATING SYSTEM: Win95  
 ; SOFTWARE: Word  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/08/905,223  
 ; FILING DATE:  
 ; CLASSIFICATION: 536  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: Israel, Ned A.  
 ; REGISTRATION NUMBER: 29,655  
 ; REFERENCE/DOCKET NUMBER:  
 ; TELECOMMUNICATION INFORMATION:





Sequence 18 Application US/08880342  
Patent No. 6218179

GENERAL INFORMATION:

APPLICANT: Webster, Keith A.  
APPLICANT: Bishopric, Nanette H.  
APPLICANT: Murphy, Brian  
APPLICANT: Laderoute, Keith R.  
APPLICANT: Green, Christopher J.  
TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
NUMBER OF INVENTION: Therapeutic Constructs  
NUMBER OF SEQUENCES: 37

CORRESPONDENCE ADDRESS:  
ADDRESSEE: Dehlinger & Associates  
STREET: 350 Cambridge Avenue, Suite 250  
CITY: Palo Alto  
STATE: CA  
COUNTRY: USA  
ZIP: 94306

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/880,342  
FILING DATE: 23-JUN-1997  
CLASSIFICATION: 514  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: PCT/IB95/00996  
FILING DATE: 13-NOV-1995  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/365,486  
FILING DATE: 23-DEC-1994  
ATTORNEY/AGENT INFORMATION:  
NAME: Shultz, Charles K.  
REGISTRATION NUMBER: 38,615  
REFERENCE/DOCKET NUMBER: 8255-0018.30  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-0880  
TELEFAX: (415) 324-0960  
INFORMATION FOR SEQ ID NO: 18:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 4353 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA to mRNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
INDIVIDUAL ISOLATE: Human NOS-1 gene, Fujisawa, et al,  
INDIVIDUAL ISOLATE: J. Neurochem 63:140 1994  
FEATURE:

NAME/KEY: CDS  
LOCATION: 1..4305  
US-08-880-342-18

	Query Match	Similarity	Score	DB 4:	Length	4355;
	Best Local	Similarity	48.8%;	Pred.	No.5.6e-10;	
	Matches	245;	Conservative	0;	Mismatches	239;
					Indels	18;
					Gaps	2;
OY	1588	TTCACATTTACCAGATGACCCCTCATCATCCCATTAATGTGTGGTCCAGAACCGGCATA	1647			
Db	3715	TTCCACTGCCCCGGGAACCCCAGTAGTCCCTGCAATCCTCGTTGGACCAAGGACCGGCATT	3774			
OY	1648	GCCCCGTTTATTTGGGTTCTCAACAACATAGAGAAGAACTCCAAGAACACACCCAGATGGA	1707			
Db	3775	GCCCCCTTTCCGAACCTTCTGGCACACAGG---GCAATTGTGATATTCACACACAAAGGATG	3831			
OY	1708	AATTTTGAGACAATGTGTTTATTTTGGCTGCGACGCATTAAGATPAGGATTTATCTATTC	1767			
Db	3832	AACCCCTGCCCATGCTGCTGTTTGGGGTGGCGGCATCCAGATAGATCAATATCTAC	3891			

Oy	1768	AGAAAGAAGCTCACAACATTTTCCCTTAAGCATGGATCTTTACTCATCTAAGAGTTTCCTTG	1827
Db	3892	AGGGAAGAGACCCTGCAGGCCAAMAGAGGGGTCTTCAGAGAGCTGTACACGGCTTAC	3951
Oy	1828	TCAAGAGATGCTCTGTATTGGGAGAGAGAACCCACCAAGATATGTATCAAGAACATAC	1887
Db	3952	TCCC-----GGGAGCCAGACAAACCAAGAAGTACGTGCAGGACATCTCG	3996
Oy	1888	CAGCTTCATGGCCAGCAGGTGGCCAGATCCTCCTCCAGAGAAAGGCCCATATTATGTG	1947
Db	3997	CAGAGACAGCTGGGGGAGTGTGTGTACGAGCCTGGAAGAGAGCAAGGGGGGCACATATAC	4056
Oy	1948	TGTGGAGATGCAAAAGAAATATGGCCAAGAGATGATCATATGCCCTTGTGCATAATATATAGC	2007
Db	4057	GTCGTGGGGACGTCACCATGCTGCTGATGTCTCTCAAAGGCACATCAGCGCATCATGCC	4116
Oy	2008	AAAAGGTTGGAGTTGAAAACTGGAAGCAATGAAAAACCTCGGCCACTTTTAAAGAAGAA	2067
Db	4117	CAGCAGGGGGAAGCTCTCGGCGAGAGAGACCGCGCATTTATCATCACCCGATGAGGATGAC	4176
Oy	2068	AAAGCTACCTTCAGATATTT	2089
Db	4177	AACCGATACCTGAGATATTT	4198

RESULT 5  
 US-08-365-486A-20  
 Sequence 20, Application US/08365486A  
 Patent No. 5634306  
 GENERAL INFORMATION:  
 APPLICANT: Webster, Keith A.  
 APPLICANT: Bishopric, Nanette H.  
 TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
 NUMBER OF INVENTION: Therapeutic Constructs  
 NUMBER OF SEQUENCES: 31  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: Dehlinger & Associates  
 STREET: 350 Cambridge Avenue, Suite 250  
 CITY: Palo Alto  
 STATE: CA  
 COUNTRY: USA  
 ZIP: 94306  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: Patentin Release #1.0, Version #1.25  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/365,486A  
 FILING DATE: 23-DEC-1994  
 CLASSIFICATION: 514  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Sholtz, Charles K.  
 REGISTRATION NUMBER: 38,615  
 REFERENCE/DOCKET NUMBER: 8255-0018  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (415) 324-0880  
 TELEFAX: (415) 324-0960  
 INFORMATION FOR SEQ ID NO: 20:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 4780 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: double  
 TOPOLOGY: linear  
 MOLECULE TYPE: CDNA to mRNA  
 HYPOTHETICAL: NO  
 ANTI-SENSE: NO  
 ORIGINAL SOURCE:  
 INDIVIDUAL ISOLATE: Human NOS-3N gene, Nakane, et al,  
 INDIVIDUAL ISOLATE: FEBS Lett 316:175 (1993)  
 FEATURE:  
 NAME/KEY: CDS  
 LOCATION: 431..4732

US-08-365-486a-20

Query Match 3.0%; Score 63.6; DB 2; Length 4780;

Best Local Similarity 48.8%; Pred. No. 6e-10; Mismatches 239; Indels 18; Gaps 2;

Matches 245; Conservative 0; Mismatches 239; Indels 18; Gaps 2;

1588 TTCCACTTACAGATGACCCCTCAATCCCATATATGATGGTCCAGAACCGGCATA 1647  
 4142 TTCCACTGCCCCGGAAACCCCAAGTCCCTGATCCCTGATGACGACGACCGCATTT 4201

1648 GCCCCGTTTATGGGTTCTTCAACATAGAGAAATCCCAAGAACACCGCATGGA 1707  
 4202 GCCCTTTCCGAACTTCTGCAACACAGCG---GCAATTTGATATCCAAACAAAGGATG 4258

1708 AATTTGAGCAATGTGGTGTGTTTGGCTGACGCGCAATAGGATATGATATCTATTC 1767  
 4259 AACCCCTGCCCCATGCTCTGCTTGGGTCGCGGCATATCCAGATATGATATCTATTC 4318

1768 AGAAAGAGCTCAGACATTTCTTAAAGATGGATCTTAACTCATCTTAAAGTTTCTTC 1827  
 4319 AGGAGAGAGACCTTGACAGGCCAAGAACAGGGGGCTTCAAGAGCTGTACAGCGCTTAC 4378

1828 TCAAGAGATGCTCTGTTGGGAGAGAGAACCCAGCAAGATGTATCAAGACACATC 1887  
 4379 TCCC-----GGGAGCCAGACAAACCAAGAGTACGTGACAGACATCTCTG 4423

1888 CAGCTTCATGCGCAGACAGTGGCGAGATCTCTCCAGAGAGAACGCCATATTTATGTG 1947  
 4424 CAGAGACAGCTGGGGAGTCTGTGTACCGACCTTGAAGAGCAAGGGGGCCACATATAC 4483

1948 TGTGAGATGCAAAAGATATGCGCAAGATGTACATGATGCTTGTGCAATATATAGC 2007  
 4484 GTCTGTGGGAGCTGACCATGGTGTGTATGCTCTCAAGGCCATTCACGATCATATGAC 4543

2008 AAAAGGTTGAGTTGAAAACTAGAACCATGAAACCTTGGCCACTTTAAAGAGAA 2067  
 4544 CAGAGAGGGAAGCTCTCGGAGAGAGACCGCGGTATTCATACGCGGATGAGGATGAC 4603

2068 AAAGCTACCTTCAGATATTT 2089  
 4604 AACGATACATGAGATATTT 4625

RESULT 6  
 US-09-123-708-3  
 : Sequence 3, Application US/09123708

Patent No. 6146887  
 : GENERAL INFORMATION:  
 : APPLICANT: SCHRAEDER, Juergen  
 : APPLICANT: GODECKE, Axel  
 : TITLE OF INVENTION: DNA EXPRESSION VECTORS FOR USE IN GENE THERAPEUTIC  
 : FILE REFERENCE: 511169-2003  
 : CURRENT APPLICATION NUMBER: US/09/123,708  
 : CURRENT FILING DATE: 1998-07-28  
 : EARLIER APPLICATION NUMBER: 08/553,503  
 : EARLIER FILING DATE: 1996-03-01  
 : EARLIER APPLICATION NUMBER: P411402.8  
 : EARLIER FILING DATE: 1994-03-31  
 : NUMBER OF SEQ ID NOS: 6  
 : SOFTWARE: Patent In Ver. 2.0  
 : SEQ ID NO 3  
 : LENGTH: 4780  
 : TYPE: DNA  
 : ORGANISM: Cytomegalovirus  
 : US-09-123-708-3

Query Match 3.0%; Score 63.6; DB 3; Length 4780;

Best Local Similarity 48.8%; Pred. No. 6e-10;

Matches 245; Conservative 0; Mismatches 239; Indels 18; Gaps 2;

1588 TTCCACTTACAGATGACCCCTCAATCCCATATATGATGGTCCAGAACCGGCATA 1647  
 4142 TTCCACTGCCCCGGAAACCCCAAGTCCCTGATCCCTGATGACGACGACCGCATTT

4142 TTCCACTGCCCCGGAAACCCCAAGTCCCTGATCCCTGATGACGACGACCGCATTT 4201

1648 GCCCCGTTTATGGGTTCTTCAACATAGAGAAATCCCAAGAACACCGCATGGA 1707

4202 GCCCTTTCCGAACTTCTGCAACACAGCG---GCAATTTGATATCCAAACAAAGGATG 4258

1708 AATTTGAGCAATGTGGTGTGTTTGGCTGACGCGCAATAGGATATGATATCTATTC 1767

4259 AACCCCTGCCCCATGCTCTGCTTGGGTCGCGGCATATCCAGATATGATATCTATTC 4318

1768 AGAAAGAGCTCAGACATTTCTTAAAGATGGATCTTAACTCATCTTAAAGTTTCTTC 1827

4319 AGGAGAGAGACCTTGACAGGCCAAGAACAGGGGGCTTCAAGAGCTGTACAGCGCTTAC 4378

1828 TCAAGAGATGCTCTGTTGGGAGAGAGAACCCAGCAAGATGTATCAAGACACATC 1887

4379 TCCC-----GGGAGCCAGACAAACCAAGAGTACGTGACAGACATCTCTG 4423

1888 CAGCTTCATGCGCAGACAGTGGCGAGATCTCTCCAGAGAGAACGCCATATTTATGTG 1947

4424 CAGAGACAGCTGGGGAGTCTGTGTACCGACCTTGAAGAGCAAGGGGGCCACATATAC 4483

1948 TGTGAGATGCAAAAGATATGCGCAAGATGTACATGATGCTTGTGCAATATATAGC 2007

4484 GTCTGTGGGAGCTGACCATGGTGTATGCTCTCAAGGCCATTCACGATCATATGAC 4543

2008 AAAAGGTTGAGTTGAAAACTAGAACCATGAAACCTTGGCCACTTTAAAGAGAA 2067

4544 CAGCAGGGAAGCTCTCGGAGAGAGACCGCGGTATTCATACGCGGATGAGGATGAC 4603

2068 AAAGCTACCTTCAGATATTT 2089

4604 AACGATACATGAGATATTT 4625

RESULT 7  
 US-09-123-624-3  
 : Sequence 3, Application US/09123624

Patent No. 6149936  
 : GENERAL INFORMATION:  
 : APPLICANT: SCHRAEDER, Juergen  
 : APPLICANT: GODECKE, Axel  
 : TITLE OF INVENTION: DNA EXPRESSION VECTORS FOR USE IN THE GENE THERAPEUTIC  
 : FILE REFERENCE: 511169-2004  
 : CURRENT APPLICATION NUMBER: US/09/123,624  
 : CURRENT FILING DATE: 1998-07-28  
 : PRIOR APPLICATION NUMBER: 08/553,503  
 : PRIOR FILING DATE: 1996-03-01  
 : PRIOR APPLICATION NUMBER: 4411402.8  
 : PRIOR FILING DATE: 1994-03-31  
 : NUMBER OF SEQ ID NOS: 6  
 : SOFTWARE: Patent In Ver. 2.1  
 : SEQ ID NO 3  
 : LENGTH: 4780  
 : TYPE: DNA  
 : ORGANISM: Homo sapiens  
 : US-09-123-624-3

Query Match 3.0%; Score 63.6; DB 3; Length 4780;

Best Local Similarity 48.8%; Pred. No. 6e-10;

Matches 245; Conservative 0; Mismatches 239; Indels 18; Gaps 2;

1588 TTCCACTTACAGATGACCCCTCAATCCCATATATGATGGTCCAGAACCGGCATA 1647

4142 TTCCACTGCCCCGGAAACCCCAAGTCCCTGATCCCTGATGACGACGACCGCATTT 4201

1648 GCCCCGTTTATGGGTTCTTCAACATAGAGAAATCCCAAGAACACCGCATGGA 1707

4202 GCCCTTTCCGAACTTCTGCAACACAGCG---GCAATTTGATATCCAAACAAAGGATG 4258

1708 AATTTGAGCAATGTGGTGTGTTTGGCTGACGCGCAATAGGATATGATATCTATTC 1767

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Db 4259 AACCCCTGCCCATGTCCTGCTTCGGGTCGCCGCAATCCAAATGATATATCTAC 4318
QY 1768 AGAAAGAGCTCAGACATTTCTTAAGCATGGATCTTAATCATCTAAAGGTTTCCTTC 1827
Db 4319 AGGGAAGAGACCTCTCAGAGCCAAAGAGGGGCTCTCAGAGACTGTACACGGCTTAC 4378
QY 1828 TCAAGAGATGCTCTGTTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1887
Db 4379 TCCC-----GGGAGGCGAGCAAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4423
QY 1888 CAGCTTATGCGCCAGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1947
Db 4424 CAGAGAGAGCTGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4483
QY 1948 TGTGAGATGCAAAAGATATGCGCAAGAGATGATCATGTATGCTTGTGCAATTAATAGC 2007
Db 4484 GTCTGTGGGAGAGCTCAGCATGCTGCTGATGCTCTCAAGAGCATCAGAGCATATGACC 4543
QY 2008 AAAGAGTTGGAGTTGAAAACCTAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2067
Db 4544 CAGCAGGAGAGAGCTCTCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4603
QY 2068 AAACGCTACTTCAGATATTT 2089
Db 4604 AACGATACCATGAGATATTT 4625

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# RESULT 8

US-08-880-342-20

; Sequence 20, Application US/08880342

; Patent No. 6218179

; GENERAL INFORMATION:

; APPLICANT: Webster, Keith A.

; APPLICANT: Bishopric, Nanette H.

; APPLICANT: Murphy, Brian

; APPLICANT: Laderoute, Keith R.

; APPLICANT: Green, Christopher J.

; TITLE OF INVENTION: Tissue Specific Hypoxia Regulated

; TITLE OF INVENTION: Therapeutic Constructs

; NUMBER OF SEQUENCES: 37

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Dehlinger & Associates

; STREET: 350 Cambridge Avenue, Suite 250

; CITY: Palo Alto

; STATE: CA

; COUNTRY: USA

; ZIP: 94306

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: Patentin Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/880,342

; FILING DATE: 23-JUN-1997

; CLASSIFICATION: 514

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: PCT/IB95/00996

; FILING DATE: 13-NOV-1995

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/365,486

; FILING DATE: 23-DEC-1994

; ATTORNEY/AGENT INFORMATION:

; NAME: Sholtz, Charles K.

; REGISTRATION NUMBER: 38,615

; REFERENCE/DOCKET NUMBER: 8255-0018.30

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: (415) 324-0880

; TELEFAX: (415) 324-0960

; INFORMATION FOR SEQ ID NO: 20:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 4780 base pairs

; TYPE: nucleic acid

; MEDIUM TYPE: Floppy disk

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; STRANDEDNESS: double
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA to mRNA
; HYPOTHETICAL: NO
; ANTI-SENSE: NO
; ORIGINAL SOURCE:
; INDIVIDUAL ISOLATE: Human NOS-SN gene, Nakane, et al,
; FEATUE:
; NAME/KEY: CDS
; LOCATION: 431..4732
; US-08-880-342-20

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Query Match
Best Local Similarity 48.8%; Pred. No. 6e-10; Length 4780;
Matches 245; Conservative 0; Mismatches 239; Indels 18; Gaps 2;

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QY 1588 TTCACCTTACAGATGACCCCTCATTCCTCATATATGTTGGGTCCAGAGACGGCATTA 1647
Db 4142 TTCACCTGCCCCGAGACCCCAAGTCCCTGATCCTGTTGGACAGGACCGGCAATT 4201
QY 1648 GCGCCGTTATTGGGTTCTCAACATAGAGAGAACTCCAGAGAACACACCCAGATGGA 1707
Db 4202 GCGCCGTTCCGAAAGCTTCTGCGACACAGCG---GCAATTTGATATCCACACAAAGGAATG 4258
QY 1708 AATTTTGAGCAATGTGGTGTGTTTGTGCTGACAGAGCATTAAGGATATGATATCTATTTC 1767
Db 4259 AACCCCTGCCCATGCTCTGCTGCTGCGGTGCGGCAATCCAGATGATCATATATCTAC 4318
QY 1768 AGAAAGAGCTCAGACATTTCTTAAGCATGGATCTTAATCATCTAAAGGTTTCCTTC 1827
Db 4319 AGGGAAGAGACCTCTGACAGGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4378
QY 1828 TCAAGAGATGCTCCTGTTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1887
Db 4379 TCCC-----GGAGCCAGACAAACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4423
QY 1888 CAGCTTATGCGCAGCAGAGTGGGAGAGATCTCTCCAGAGAGAGAGAGAGAGAGAGAGAGAG 1947
Db 4424 CAGAGAGAGCTGCGGAGAGTGTGTACCGAGCCCTGAAAGAGAGAGAGAGAGAGAGAGAGAG 4483
QY 1948 TGTGAGATGCAAAAGATATGCGCAAGAGATGATCATGTATGCTTGTGCAATTAATAGC 2007
Db 4484 GTCTGTGGGAGAGCTCAGCATGCTGCTGATGCTCTCAAGAGCATCAGAGCATATGACC 4543
QY 2008 AAAGAGTTGGAGTTGAAAACCTAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2067
Db 4544 CAGCAGGAGAGAGCTCTCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4603
QY 2068 AAACGCTACTTCAGATATTT 2089
Db 4604 AACGATACCATGAGATATTT 4625

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# RESULT 9

US-08-365-486A-12

; Sequence 12, Application US/08365486A

; Patent No. 5834306

; GENERAL INFORMATION:

; APPLICANT: Webster, Keith A.

; APPLICANT: Bishopric, Nanette H.

; TITLE OF INVENTION: Tissue Specific Hypoxia Regulated

; TITLE OF INVENTION: Therapeutic Constructs

; NUMBER OF SEQUENCES: 31

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Dehlinger & Associates

; STREET: 350 Cambridge Avenue, Suite 250

; CITY: Palo Alto

; STATE: CA

; COUNTRY: USA

; ZIP: 94306

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk











GenCore version 5.1.6  
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OM protein - nucleic search, using frame\_plus\_p2n model

Run on: July 29, 2003, 10:00:04 ; Search time 155 Seconds  
(without alignments)  
239.574 Million cell updates/sec

Title: US-09-371-347A-25  
Perfect score: 109  
Sequence: 1 GAMMIFGCRHKRDYLF 18

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Ygapop 10.0 , Ygapext 0.5  
Fgapop 6.0 , Fgapext 7.0  
Delop 6.0 , Delext 7.0

Searched: 1439767 seqs, 1031500376 residues  
Total number of hits satisfying chosen parameters: 2879534

Minimum DB seq length: 0  
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Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

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-TRANS=human40.cdi -LIST=45 -DOCLIGN=200 -THR\_SCORE=pct -THR\_MAX=100  
-THR\_MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MNTLEN=0  
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-LONLOG -DEV\_TIMEOUT=120 -WARN\_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5  
-FGAPOP=6 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7

#### Database :

Published Applications\_NA:\*

- 1: /cgn2\_6/ptodata/2/pubpna/US07\_PUBCOMB.seq:\*
- 2: /cgn2\_6/ptodata/2/pubpna/PC1\_NEW\_PUB.seq:\*
- 3: /cgn2\_6/ptodata/2/pubpna/US06\_NEW\_PUB.seq:\*
- 4: /cgn2\_6/ptodata/2/pubpna/US06\_PUBCOMB.seq:\*
- 5: /cgn2\_6/ptodata/2/pubpna/US07\_NEW\_PUB.seq:\*
- 6: /cgn2\_6/ptodata/2/pubpna/PC1US\_PUBCOMB.seq:\*
- 7: /cgn2\_6/ptodata/2/pubpna/US08\_NEW\_PUB.seq:\*
- 8: /cgn2\_6/ptodata/2/pubpna/US08\_PUBCOMB.seq:\*
- 9: /cgn2\_6/ptodata/2/pubpna/US09\_NEW\_PUB.seq:\*
- 10: /cgn2\_6/ptodata/2/pubpna/US09\_PUBCOMB.seq:\*
- 11: /cgn2\_6/ptodata/2/pubpna/US09\_NEW\_PUB.seq:\*
- 12: /cgn2\_6/ptodata/2/pubpna/US09\_NEW\_PUBCOMB.seq:\*
- 13: /cgn2\_6/ptodata/2/pubpna/US09\_PUBCOMB.seq:\*
- 14: /cgn2\_6/ptodata/2/pubpna/US10\_NEW\_PUB.seq:\*
- 15: /cgn2\_6/ptodata/2/pubpna/US10\_PUBCOMB.seq:\*
- 16: /cgn2\_6/ptodata/2/pubpna/US60\_NEW\_PUB.seq:\*
- 17: /cgn2\_6/ptodata/2/pubpna/US60\_PUBCOMB.seq:\*

Pred. NO. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	109	100.0	2093	12	US-09-371-347-47 Sequence 47, Appl

2	109	100.0	2097	12	US-09-371-347-1	Sequence 1, Appl1
3	109	100.0	2097	12	US-09-371-347-41	Sequence 41, Appl1
4	109	100.0	2097	12	US-09-371-347-43	Sequence 43, Appl1
5	109	100.0	3259	12	US-09-371-347-24	Sequence 24, Appl1
6	94.5	86.7	2094	11	US-09-371-347-45	Sequence 45, Appl1
7	76	69.7	101	11	US-09-783-590-1364	Sequence 1364, Ap
8	60	55.0	315	8	US-08-781-986A-941	Sequence 941, App
9	60	55.0	3690	11	US-09-870-759-123	Sequence 123, App
10	60	55.0	13508	8	US-08-781-986A-120	Sequence 120, App
11	59	54.1	230	10	US-09-923-876-2845	Sequence 2845, Ap
12	59	54.1	298	10	US-08-294-093B-4842	Sequence 4842, Ap
13	58	53.2	1872	11	US-09-917-800A-1351	Sequence 1351, Ap
14	58	53.2	2401	11	US-09-917-800A-1397	Sequence 1397, Ap
15	58	53.2	2403	11	US-09-880-107-3039	Sequence 3039, Ap
16	58	53.2	3458	10	US-09-822-849A-278	Sequence 278, App
17	57	52.3	1845	15	US-10-128-714-1234	Sequence 1234, Ap
18	57	52.3	1845	15	US-10-128-714-1234	Sequence 1234, Ap
19	57	52.3	2088	15	US-10-128-714-7234	Sequence 7234, Ap
20	57	52.3	2145	15	US-10-128-714-6234	Sequence 6234, Ap
21	57	52.3	3845	15	US-10-128-714-234	Sequence 234, App
22	57	52.3	4145	15	US-10-128-714-5234	Sequence 5234, Ap
23	56	51.4	367	11	US-09-867-701-1581	Sequence 1581, Ap
24	55	50.5	491	11	US-09-974-300-6448	Sequence 6448, Ap
25	55	50.5	3855	15	US-10-210-682-1	Sequence 1, Appl1
26	54	49.5	555	11	US-09-974-300-6632	Sequence 6632, Ap
27	54	49.5	600	11	US-09-974-300-6633	Sequence 6633, Ap
28	53	48.6	1791	11	US-09-778-319-1	Sequence 1, Appl1
29	53	48.6	1944	15	US-10-272-017A-1	Sequence 1, Appl1
30	53	48.6	1944	15	US-10-272-017A-4	Sequence 4, Appl1
31	53	48.6	3037	10	US-09-911-781-10	Sequence 10, Appl1
32	53	48.6	3219	15	US-10-156-761-567	Sequence 567, App
33	53	48.6	4145	10	US-09-911-781-3	Sequence 3, Appl1
34	53	48.6	4145	12	US-09-976-800-82	Sequence 82, Appl
35	53	48.6	4145	15	US-10-138-838-82	Sequence 82, Appl
36	53	48.6	4145	15	US-10-138-838-82	Sequence 82, Appl
37	53	48.6	4145	15	US-10-138-905-82	Sequence 82, Appl
38	53	48.6	4145	15	US-10-138-905-82	Sequence 82, Appl
39	53	48.6	4206	10	US-09-911-781-2	Sequence 2, Appl1
40	53	48.6	4206	12	US-09-976-800-81	Sequence 81, Appl1
41	53	48.6	4206	15	US-10-138-838-81	Sequence 81, Appl
42	53	48.6	4206	15	US-10-138-838-81	Sequence 81, Appl
43	53	48.6	4206	15	US-10-138-905-81	Sequence 81, Appl
44	53	48.6	4206	15	US-10-138-905-81	Sequence 81, Appl
45	53	48.6	9025608	15	US-10-156-761-1	Sequence 1, Appl1

#### ALIGNMENTS

RESULT 1  
US-09-371-347-47  
; Sequence 47, Application US/09371347  
; Publication No. US20030082676A1  
; GENERAL INFORMATION:  
; APPLICANT: Roy A. Gravel et al.  
; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE;  
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
; TITLE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER  
; FILE REFERENCE: 50004/003003  
; CURRENT APPLICATION NUMBER: US/09/371,347  
; CURRENT FILING DATE: 1999-08-10  
; PRIOR APPLICATION NUMBER: 60/071,622  
; PRIOR FILING DATE: 1998-01-16  
; PRIOR APPLICATION NUMBER: 09/232,028  
; PRIOR FILING DATE: 1999-01-15  
; NUMBER OF SEQ ID NOS: 51  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 47  
; LENGTH: 2093  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-371-347-47  
Alignment Scores:

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Pred. No.: 3.6e-09 Length: 2093
Score: 109.00 Matches: 18
Percent Similarity: 100.00% Conservative: 0
Best Local Similarity: 100.00% Mismatches: 0
Query Match: 100.00% Indels: 0
DB: 12 Gaps: 0

US-09-371-347A-25 (1-18) x US-09-371-347-47 (1-2093)

OY 1 G1yAlaMeTtPLeuPhEgLyCysArGhIsLysAsPaRgAsPtyrLeuPhe 18
Db 1710 GGAGCAATGTGTTTGTGCTGCGAGCATAGGATTATCTATTC 1763

RESULT 2
US-09-371-347-1
; Sequence 1, Application US/09371347
; Publication No. US20030082676A1
; GENERAL INFORMATION:
; APPLICANT: Roy A. Gravel et al.
; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE
; TITLE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER
; FILE REFERENCE: 50004/003003
; CURRENT APPLICATION NUMBER: US/09/371,347
; CURRENT FILING DATE: 1999-08-10
; PRIOR APPLICATION NUMBER: 60/071,622
; PRIOR FILING DATE: 1998-01-16
; PRIOR APPLICATION NUMBER: 09/232,028
; PRIOR FILING DATE: 1999-01-15
; NUMBER OF SEQ ID NOS: 51
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 2097
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-371-347-1

Alignment Scores:
Pred. No.: 3.61e-09 Length: 2097
Score: 109.00 Matches: 18
Percent Similarity: 100.00% Conservative: 0
Best Local Similarity: 100.00% Mismatches: 0
Query Match: 100.00% Indels: 0
DB: 12 Gaps: 0

US-09-371-347A-25 (1-18) x US-09-371-347-1 (1-2097)

OY 1 G1yAlaMeTtPLeuPhEgLyCysArGhIsLysAsPaRgAsPtyrLeuPhe 18
Db 1714 GGAGCAATGTGTTTGTGCTGCGAGCATAGGATTATCTATTC 1767

RESULT 3
US-09-371-347-41
; Sequence 41, Application US/09371347
; Publication No. US20030082676A1
; GENERAL INFORMATION:
; APPLICANT: Roy A. Gravel et al.
; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE
; TITLE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER
; FILE REFERENCE: 50004/003003
; CURRENT APPLICATION NUMBER: US/09/371,347
; CURRENT FILING DATE: 1999-08-10
; PRIOR APPLICATION NUMBER: 60/071,622
; PRIOR FILING DATE: 1998-01-16
; PRIOR APPLICATION NUMBER: 09/232,028
; PRIOR FILING DATE: 1999-01-15
; NUMBER OF SEQ ID NOS: 51
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 41
; LENGTH: 2097
; TYPE: DNA
; ORGANISM: Homo sapiens

US-09-371-347-41

Alignment Scores:
Pred. No.: 3.61e-09 Length: 2097
Score: 109.00 Matches: 18
Percent Similarity: 100.00% Conservative: 0
Best Local Similarity: 100.00% Mismatches: 0
Query Match: 100.00% Indels: 0
DB: 12 Gaps: 0

US-09-371-347A-25 (1-18) x US-09-371-347-43 (1-2097)

OY 1 G1yAlaMeTtPLeuPhEgLyCysArGhIsLysAsPaRgAsPtyrLeuPhe 18
Db 1714 GGAGCAATGTGTTTGTGCTGCGAGCATAGGATTATCTATTC 1767

RESULT 5
US-09-371-347-24
; Sequence 24, Application US/09371347
; Publication No. US20030082676A1
; GENERAL INFORMATION:
; APPLICANT: Roy A. Gravel et al.
; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE
; TITLE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER
; FILE REFERENCE: 50004/003003
; CURRENT APPLICATION NUMBER: US/09/371,347
; CURRENT FILING DATE: 1999-08-10
; PRIOR APPLICATION NUMBER: 60/071,622
; PRIOR FILING DATE: 1998-01-16
; PRIOR APPLICATION NUMBER: 09/232,028
; PRIOR FILING DATE: 1999-01-15
; NUMBER OF SEQ ID NOS: 51
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 24
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Alignment Scores:

Pred. No.:	0.13	Length:	315
Score:	60.00	Matches:	9
Percent Similarity:	72.22%	Conservative:	4
Best Local Similarity:	50.00%	Mismatches:	5
Query Match:	55.05%	Indels:	0
DB:	8	Gaps:	0

US-09-371-347a-25 (1-18) x US-08-781-986a-941 (1-315)

Oy 1 G1yAlaMetRpleuphepGhG1yCsArghIs1sYsAsPaRgAsPtyrLeuphe 18  
Db 146 GGAAGAACATGCTGTCTTGTGGTGCACACCGTACTGTCTTATAT 199

RESULT 9

US-09-870-759-123

Sequence 123, Application US/09870759

Patent No. US20020177551A1

GENERAL INFORMATION:

APPLICANT: TERMAN, David S

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATMENT OF NEOPLASTIC DISEASE

FILE REFERENCE: 870759

CURRENT APPLICATION NUMBER: US/09/870,759

PRIOR FILING DATE: 2002-01-14

PRIOR APPLICATION NUMBER: US 60/208,128

PRIOR FILING DATE: 2000-05-30

NUMBER OF SEQ ID NOS: 166

SOFTWARE: PatentIn version 3.1

SEQ ID NO 123

LENGTH: 3690

TYPE: DNA

ORGANISM: Mus musculus

FEATURE:

NAME/KEY: CDS

LOCATION: (256)..(3690)

OTHER INFORMATION:

US-09-870-759-123

Alignment Scores:

Pred. No.:	2.23	Length:	3690
Score:	60.00	Matches:	10
Percent Similarity:	72.22%	Conservative:	3
Best Local Similarity:	55.56%	Mismatches:	5
Query Match:	55.05%	Indels:	0
DB:	11	Gaps:	0

US-09-371-347a-25 (1-18) x US-09-870-759-123 (1-3690)

Oy 1 G1yAlaMetRpleuphepGhG1yCsArghIs1sYsAsPaRgAsPtyrLeuphe 18  
Db 3259 GCGCGCATGAGCTGTGTGTGGTGGCGCGCACCGGAGGAGACACCTCTAT 3312

RESULT 10

US-08-781-986a-120

Sequence 120, Application US/08781986A

Publication No. US20030054436A1

GENERAL INFORMATION:

APPLICANT: Charles Kunsch

TITLE OF INVENTION: Staphylococcus aureus Polynucleotides and Sequences

NUMBER OF SEQUENCES: 5255

CORRESPONDENCE ADDRESS:

ADDRESSEE: Human Genome Sciences, Inc.

STREET: 9410 Key West Avenue

CITY: Rockville

STATE: Maryland

COUNTRY: USA

ZIP: 20850

COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage

COMPUTER: HP Vectra 486/33

OPERATING SYSTEM: MSDOS version 6.2

SOFTWARE: ASCII Text

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/781,986A

FILING DATE:

CLASSIFICATION: 435

PRIOR APPLICATION DATA:

APPLICATION NUMBER:

FILING DATE:

ATTORNEY/AGENT INFORMATION:

NAME: Benson, Bob

REGISTRATION NUMBER: 30,446

REFERENCE/DOCKET NUMBER: PB248PP

TELECOMMUNICATION INFORMATION:

TELEPHONE: (301) 309-8512

TELEFAX: (301) 309-8504

INFORMATION FOR SEQ ID NO: 120:

SEQUENCE CHARACTERISTICS:

LENGTH: 13508 base pairs

TYPE: nucleic acid

STRANDEDNESS: double

TOPOLOGY: linear

US-08-781-986a-120

Alignment Scores:

Pred. No.:	9.99	Length:	13508
Score:	60.00	Matches:	9
Percent Similarity:	72.22%	Conservative:	4
Best Local Similarity:	50.00%	Mismatches:	5
Query Match:	55.05%	Indels:	0
DB:	8	Gaps:	0

US-09-371-347a-25 (1-18) x US-08-781-986a-120 (1-13508)

Oy 1 G1yAlaMetRpleuphepGhG1yCsArghIs1sYsAsPaRgAsPtyrLeuphe 18  
Db 1236 GGAAGAACATGCTGTCTTGTGGTGCACACCGTACTGTCTTATAT 1289

RESULT 11

US-09-923-876-2845

Sequence 2845, Application US/09923876

Patent No. US20020013958A1

GENERAL INFORMATION:

APPLICANT: Laligudi, Raghunath V.

APPLICANT: Kamigaki, Laura Y. (Itc)

APPLICANT: Sherman, Bradley K.

TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN SEEDLING

FILE REFERENCE: PL-0012-1 CON

CURRENT APPLICATION NUMBER: US/09/923,876

CURRENT FILING DATE: 2001-08-06

PRIOR APPLICATION NUMBER: 09/298,329

PRIOR FILING DATE: 1999-04-21

PRIOR APPLICATION NUMBER: 60/085,331

PRIOR FILING DATE: 1998-05-05

NUMBER OF SEQ ID NOS: 6332

SOFTWARE: PERL Program

SEQ ID NO 2845

LENGTH: 230

TYPE: DNA

ORGANISM: Zea mays

FEATURE:

NAME/KEY: misc-feature

OTHER INFORMATION: Incyte ID No. US20020013958A1 700161271H1

NAME/KEY: unsure

LOCATION: 196

OTHER INFORMATION: a, t, c, g, or other

US-09-923-876-2845

Alignment Scores:

Pred. No.:	0.134	Length:	230
Score:	59.00	Matches:	9
Percent Similarity:	77.78%	Conservative:	5
Best Local Similarity:	50.00%	Mismatches:	4
Query Match:	54.13%	Indels:	0
DB:	10	Gaps:	0

Alignment Scores:

Pred. No.: 3.02 Length: 2401  
Score: 58.00 Matches: 9  
Percent Similarity: 66.67% Conservative: 3  
Best Local Similarity: 50.00% Mismatches: 6  
Query Match: 53.21% Indels: 0  
DB: 11 Gaps: 0

US-09-371-347A-25 (1-18) x US-09-917-800A-1397 (1-2401)

OY 1 GYAlaMetTrpLeuPheGlyCysArgHisLysAspArgAspTyrLeuPhe 18  
DB 1676 GGAGAGACCGCTGCTACTATGCGTCCGCGCTCGATGAGGACTATCTGTAC 1729

## RESULT 15

US-09-880-107-3039.  
; Sequence 3039, Application US/09880107  
; Patent No. US20020142981A1  
; GENERAL INFORMATION:  
; APPLICANT: Horne, Darci T.  
; APPLICANT: Vockley, Joseph G.  
; APPLICANT: Scherf, Uwe  
; APPLICANT: Gene Logic, Inc.  
; TITLE OF INVENTION: Gene Expression Profiles in Liver Cancer  
; FILE REFERENCE: 44921-5028-WO  
; CURRENT APPLICATION NUMBER: US/09/880,107  
; PRIOR FILING DATE: 2001-06-14  
; PRIOR APPLICATION NUMBER: US 60/211,379  
; PRIOR FILING DATE: 2000-06-14  
; PRIOR APPLICATION NUMBER: US 60/237,054  
; PRIOR FILING DATE: 2000-10-02  
; NUMBER OF SEQ ID NOS: 3950  
; SOFTWARE: Patentln Ver. 2.1  
; SEQ ID NO 3039  
; LENGTH: 2403  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
; FEATURE:  
; OTHER INFORMATION: Genbank Accession No. US20020142981A1 S90469  
US-09-880-107-3039

## Alignment Scores:

Pred. No.:	3.02	Length:	2403
Score:	58.00	Matches:	9
Percent Similarity:	66.67%	Conservative:	3
Best Local Similarity:	50.00%	Mismatches:	6
Query Match:	53.21%	Indels:	0
DB:	11	Gaps:	0

US-09-371-347A-25 (1-18) x US-09-880-107-3039 (1-2403)

OY 1 GYAlaMetTrpLeuPheGlyCysArgHisLysAspArgAspTyrLeuPhe 18  
DB 1669 GGAGAGACCGCTGCTACTATGCGTCCGCGCTCGATGAGGACTACTGTAC 1722

Search completed: July 29, 2003, 13:11:26  
Job time : 163 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - nucleic search, using frame\_plus\_p2n model

Run on: July 29, 2003, 12:57:24 ; Search time 39 Seconds  
(without alignments)  
141.543 Million cell updates/sec

Title: US-09-371-347A-25  
Perfect score: 109  
Sequence: 1 GAWMLFFGCRHKDRDYLF 18

Scoring table:  
BLOSUM62  
Xgapop 10.0, Xgapext 0.5  
Ygapop 10.0, Ygapext 0.5  
Fgapop 6.0, Fgapext 7.0  
Delop 6.0, Delext 7.0

Searched: 441362 seqs, 153338381 residues  
Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Command line parameters:  
-MODEL=frame+g2n.model -DEV=xlh  
-O=/cg2n2\_1/USPRO\_pool/US0931347/runat\_21072003.085626.16248/app.query.fasta.1.199  
-DB=Issued\_Patents\_NA -OEMT=fastap -SUFFIX=mi -MINMATCH=0.1 -LOOPL=0  
-LOOPEXT=0 -UNITS=bits -START=1 -END=1 -MATRIX=Blasum62 -TRANS=human40.cdi  
-LIST=45 -DOCALIGN=200 -THR\_SCORE=pcr -THR\_MAX=100 -THR\_MIN=0 -ALIGN=15  
-MODE=LOCAL -OUTFMT=ptc -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000  
-USER=US0931347.ecgn.1.1.40.0.runat.21072003.085626.16248 -NCPU=6 -ICPU=3  
-NO\_MMAP -LARGOQUERY -NEG\_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOGS  
-DEV\_TIMEOUT=120 -WARN\_TIMEOUT=30 -THRADS=1 -XGAPOP=10 -XGAPEXT=0.5 -Fgapop=6  
-Fgapext=7 -Ygapop=10 -Ygapext=0.5 -Delop=6 -Delext=7

Database: Issued\_Patents\_NA:\*

- 1: /cg2n2\_6/ptodata/1/ina/5A.COMB.seq:\*
- 2: /cg2n2\_6/ptodata/1/ina/5B.COMB.seq:\*
- 3: /cg2n2\_6/ptodata/1/ina/6A.COMB.seq:\*
- 4: /cg2n2\_6/ptodata/1/ina/6B.COMB.seq:\*
- 5: /cg2n2\_6/ptodata/1/ina/CTUS.COMB.seq:\*
- 6: /cg2n2\_6/ptodata/1/ina/backfiles1.seq:\*

Pred. NO. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	109	100.0	3259	4	US-09-318-448-23
2	60	55.0	4041	4	US-08-147-812-4
3	60	55.0	4110	3	US-09-123-708-1
4	60	55.0	4110	3	US-09-123-708-1
5	60	55.0	4110	3	US-09-123-708-1
6	58	53.2	3701	1	US-08-147-812-6
7	55	50.5	4062	4	US-08-553-279-1
8	55	50.5	4145	1	US-08-126-109-11
9	55	50.5	4145	1	US-08-314-917-1
10	55	50.5	4145	2	US-08-265-046-1
11	55	50.5	4145	2	US-08-465-522-1
12	55	50.5	4145	5	PCT-US93-11401-1
13	55	50.5	4145	5	PCT-US95-07849-1

13	53	48.6	1890	4	US-09-134-001C-1557	Sequence 1557, Ap
14	53	48.6	4145	4	US-09-302-620B-82	Sequence 82, Appl
15	53	48.6	4206	4	US-09-302-620B-81	Sequence 81, Appl
16	51	46.8	1816	1	US-08-592-214A-22	Sequence 22, Appl
17	51	46.8	1816	3	US-09-149-976-22	Sequence 22, Appl
18	50	45.9	1863	4	US-09-627-216A-13	Sequence 13, Appl
19	48	44.0	382	4	US-08-976-259-78	Sequence 78, Appl
20	46	42.2	3215	1	US-08-426-627-1	Sequence 1, Appl
21	45	41.3	467	1	US-08-474-542A-780	Sequence 280, App
22	45	41.3	467	1	US-08-457-648-280	Sequence 280, App
23	45	41.3	1776	4	US-09-149-476-59	Sequence 59, Appl
24	45	41.3	1791	4	US-09-149-476-226	Sequence 226, App
25	45	41.3	4615	2	US-08-674-351-3	Sequence 3, Appl
26	45	41.3	5183	2	US-08-870-518-7	Sequence 7, Appl
27	44.5	40.8	72604	4	US-09-268-997-7	Sequence 7, Appl
28	44.5	40.8	72604	4	US-09-657-474-7	Sequence 7, Appl
29	44	40.4	4724	4	US-09-066-046-3	Sequence 3, Appl
30	44	40.4	4825	6	5459251-1	Sequence 3, Appl
31	44	40.4	5086	2	US-08-465-485A-19	Sequence 19, Appl
32	44	40.4	5086	2	US-08-365-486A-14	Sequence 14, Appl
33	44	40.4	5086	3	US-09-080-285-19	Sequence 19, Appl
34	44	40.4	5086	4	US-08-880-342-14	Sequence 14, Appl
35	44	40.4	5086	4	US-09-724-426-19	Sequence 19, Appl
36	44	40.4	5086	4	US-09-233-527-7	Sequence 7, Appl
37	44	40.4	5086	5	PCT-US93-05651-4	Sequence 4, Appl
38	44	40.4	5086	5	PCT-US93-06251-2	Sequence 2, Appl
39	44	40.4	5094	4	US-09-234-186-7	Sequence 7, Appl
40	44	40.4	5104	6	5506344-1	Sequence 7, Appl
41	44	40.4	6416	4	US-09-136-574A-2	Sequence 2, Appl
42	44	40.4	6736	3	US-09-057-570-1	Sequence 1, Appl
43	44	40.4	6736	3	US-09-057-570-5	Sequence 5, Appl
44	44	40.4	7004	3	US-09-057-570-3	Sequence 3, Appl
45	43.5	39.9	1960	2	US-08-463-081B-9	Sequence 9, Appl

## ALIGNMENTS

US-09-318-448-23  
Sequence 23, Application US/09318448  
Patent No. 6210950  
GENERAL INFORMATION:  
APPLICANT: Johnson, William G.  
TITLE OF INVENTION: METHODS FOR DIAGNOSING, PREVENTING, AND TREATING  
FILE REFERENCE: 601-1-057  
CURRENT FILING DATE: 1999-05-25  
NUMBER OF SEQ ID NOS: 46  
SOFTWARE: Patent Ver. 2.0  
SEQ ID NO 23  
LENGTH: 3259  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-318-448-23

Alignment Scores:  
Pred. No.: 1.8e-09  
Score: 109.00  
Percent Similarity: 100.00%  
Best Local Similarity: 100.00%  
Query Match: 100.00%  
DB: 4  
Gaps: 0

US-09-371-347A-25 (1-18) x US-09-318-448-23 (1-3259)

OY 1 GYALAMECTPleuphePhedlyCysargHSLySAspArgAspTyLeuphe 18  
DB 1793 GGAGCAATGCTGTTTGGCTGCGAGCAATAGGATAGGATATCTATTC 1846  
RESULT 2  
US-08-147-812-4

Sequence 4, Application US/08147812  
Patent No. 5766909  
GENERAL INFORMATION:  
APPLICANT: Xie, Qiao-wen  
APPLICANT: Nathan, Carl F.  
APPLICANT: Mumford, Richard A.  
APPLICANT: Calaycay, Jimmy Ramos  
TITLE OF INVENTION: DNA Encoding Inducible Nitric Oxide Synthase  
NUMBER OF SEQUENCES: 6  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Merck & Co., Inc.  
STREET: 126 East Lincoln Avenue  
CITY: Rahway  
STATE: New Jersey  
COUNTRY: USA  
ZIP: 07065  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy Disk  
COMPUTER: Macintosh Centris650  
OPERATING SYSTEM: Macintosh 7.0.1  
SOFTWARE: Microsoft Word 5.1a  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/147,812  
FILING DATE: No. 5766909 Available  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 07/841,641  
FILING DATE: 02-FEB-1992  
ATTORNEY/AGENT INFORMATION:  
NAME: Wallen, John W III  
REGISTRATION NUMBER: 35,403  
REFERENCE/DOCKET NUMBER: 186581A  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (908) 594-3905  
TELEFAX: (908) 594-4720  
TELEX: 138825  
INFORMATION FOR SEQ ID NO: 4:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 4041 bases  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
US-08-147-812-4

Alignment Scores:  
Pred. No.: 0.862 Length: 4041  
Score: 60.00 Matches: 10  
Percent Similarity: 72.22% Conservative: 3  
Best Local Similarity: 55.56% Mismatches: 5  
Query Match: 55.05% Indels: 0  
Gaps: 0

US-09-371-347a-25 (1-18) x US-08-147-812-4 (1-4041)

OY 1 G1yAlaMetTrPleuphepGlyCysArghIstLysAspArgAspTyrLeuPhe 18  
Db 3259 GGCCGATGAGCTTGTTGGTGGCGGACCCGAGGAGGACCACTCTAT 3312

RESULT 3  
US-09-123-708-1  
Sequence 1, Application US/09123708  
Patent No. 6146887  
GENERAL INFORMATION:  
APPLICANT: SCHRADER, Jurgen  
APPLICANT: GODECKE, Axel  
TITLE OF INVENTION: DNA EXPRESSION VECTORS FOR USE IN GENE THERAPEUTIC  
FILE REFERENCE: 511169-2003  
CURRENT APPLICATION NUMBER: US/09/123,708  
EARLIER FILING DATE: 1998-07-28  
EARLIER APPLICATION NUMBER: 08/553,503  
EARLIER FILING DATE: 1996-03-01  
EARLIER APPLICATION NUMBER: P4411402.8

EARLIER FILING DATE: 1994-03-31  
NUMBER OF SEQ ID NOS: 6  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 1  
LENGTH: 4110  
TYPE: DNA  
ORGANISM: Cytomegalovirus  
US-09-123-708-1

Alignment Scores:  
Pred. No.: 0.88 Length: 4110  
Score: 60.00 Matches: 10  
Percent Similarity: 72.22% Conservative: 3  
Best Local Similarity: 55.56% Mismatches: 5  
Query Match: 55.05% Indels: 0  
Gaps: 0

US-09-371-347a-25 (1-18) x US-09-123-708-1 (1-4110)

OY 1 G1yAlaMetTrPleuphepGlyCysArghIstLysAspArgAspTyrLeuPhe 18  
Db 3195 GGCCGATGAGCTTGTTGGTGGCGGACCCGAGGAGGACCACTCTAT 3248

RESULT 4  
US-09-123-624-1  
Sequence 1, Application US/09123624  
Patent No. 6149936  
GENERAL INFORMATION:  
APPLICANT: SCHRADER, Jurgen  
APPLICANT: GODECKE, Axel  
TITLE OF INVENTION: DNA EXPRESSION VECTORS FOR USE IN THE GENE THERAPEUTIC  
FILE REFERENCE: 511169-2004  
CURRENT APPLICATION NUMBER: US/09/123,624  
CURRENT FILING DATE: 1998-07-28  
PRIOR APPLICATION NUMBER: 08/553,503  
PRIOR FILING DATE: 1996-03-01  
PRIOR APPLICATION NUMBER: 4411402.8  
PRIOR FILING DATE: 1994-03-31  
NUMBER OF SEQ ID NOS: 6  
SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO 1  
LENGTH: 4110  
TYPE: DNA  
ORGANISM: Mus musculus  
US-09-123-624-1

Alignment Scores:  
Pred. No.: 0.88 Length: 4110  
Score: 60.00 Matches: 10  
Percent Similarity: 72.22% Conservative: 3  
Best Local Similarity: 55.56% Mismatches: 5  
Query Match: 55.05% Indels: 0  
Gaps: 0

US-09-371-347a-25 (1-18) x US-09-123-624-1 (1-4110)

OY 1 G1yAlaMetTrPleuphepGlyCysArghIstLysAspArgAspTyrLeuPhe 18  
Db 3195 GGCCGATGAGCTTGTTGGTGGCGGACCCGAGGAGGACCACTCTAT 3248

RESULT 5  
US-08-147-812-6  
Sequence 6, Application US/08147812  
Patent No. 5766909  
GENERAL INFORMATION:  
APPLICANT: Xie, Qiao-wen  
APPLICANT: Nathan, Carl F.  
APPLICANT: Mumford, Richard A.  
APPLICANT: Calaycay, Jimmy Ramos  
TITLE OF INVENTION: DNA Encoding Inducible Nitric Oxide Synthase  
NUMBER OF SEQUENCES: 6  
CORRESPONDENCE ADDRESS:



ADDRESSEE: Merck & Co., Inc.  
STREET: 126 East Lincoln Avenue  
CITY: Rahway  
STATE: New Jersey  
COUNTRY: USA  
ZIP: 07065  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy Disk  
COMPUTER: Macintosh Centris650  
OPERATING SYSTEM: Macintosh 7.0.1  
SOFTWARE: Microsoft Word 5.1a  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/147,812  
FILING DATE: No. 5766909 Available  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 07/841,641  
FILING DATE: 02-FEB-1992  
ATTORNEY/AGENT INFORMATION:  
NAME: Mallen, John W III  
REGISTRATION NUMBER: 35,403  
REFERENCE/DOCKET NUMBER: 186581A  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (908) 594-3905  
TELEFAX: (908) 594-4720  
TELEX: 138825  
INFORMATION FOR SEQ ID NO: 6:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 4165 bases  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
US-08-147-812-6  
Alignment Scores:  
Pred. No.: 0.894 Length: 4165  
Score: 60.00 Matches: 10  
Percent Similarity: 72.22% Conservative: 3  
Best Local Similarity: 55.56% Mismatches: 5  
Query Match: 55.05% Indels: 0  
DB: 1 Gaps: 0  
US-09-371-347a-25 (1-18) x US-08-147-812-6 (1-4165)  
Cy 1 GlyAlaMetTrpLeuPheGlyCysArgHisLysAspArgAspTyrLeuPhe 18  
Db 3259 GGCCGATGAGCTTGTTGGTGGCCGACCCGAGAGGAGACACCTCTAT 3312  
RESULT 6  
US-08-553-279-1  
Sequence 1, Application US/08553279  
Patent No. 5801024  
GENERAL INFORMATION:  
APPLICANT:  
TITLE OF INVENTION: No. 5801024el oxidoreductase from filamentous funghi,  
TITLE OF INVENTION: DNA coding therefore and cells transformed with said DNA.  
NUMBER OF SEQUENCES: 9  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.30B (EPO)  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/553,279  
FILING DATE:  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: EP PCT/NL94/00135  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 3701 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: unknown

TOPOLOGY: unknown  
MOLECULE TYPE: DNA (genomic)  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
US-08-553-279-1  
Alignment Scores:  
Pred. No.: 1.73 Length: 3701  
Score: 58.00 Matches: 10  
Percent Similarity: 66.67% Conservative: 2  
Best Local Similarity: 55.56% Mismatches: 6  
Query Match: 53.21% Indels: 0  
DB: 1 Gaps: 0  
US-09-371-347a-25 (1-18) x US-08-553-279-1 (1-3701)  
Cy 1 GlyAlaMetTrpLeuPheGlyCysArgHisLysAspArgAspTyrLeuPhe 18  
Db 2298 GGACCACTGTTCTTCTCGTTGCCGCAAGATGACGAGATTCTTGTAC 2351  
RESULT 7  
US-09-126-109-11  
Sequence 11, Application US/09126109  
Patent No. 6171856  
GENERAL INFORMATION:  
APPLICANT: Thigpen, Anice  
APPLICANT: Holmeier, Hans-Ewald  
APPLICANT: Newgard, Christopher B.  
APPLICANT: Unger, Roger H.  
APPLICANT: Shimabukuro, Michio  
APPLICANT: Chen, Guaxun  
APPLICANT: Rhodes, Christopher J.  
APPLICANT: Hugl, Sigrun R.  
APPLICANT: Cousin, Sharon  
TITLE OF INVENTION: METHODS AND COMPOSITIONS RELATING  
TITLE OF INVENTION: TO NO-MEDIATED CYTOTOXICITY  
NUMBER OF SEQUENCES: 20  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Arnold, White & Durkee  
STREET: P.O. Box 4433  
CITY: Houston  
STATE: Texas  
COUNTRY: USA  
ZIP: 77210  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/126,109  
FILING DATE: 30-JUL-1998  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/055,092  
FILING DATE: 30-JUL-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US Unknown  
FILING DATE: 03-MAR-1998  
ATTORNEY/AGENT INFORMATION:  
NAME: McMillian, Nabeela R.  
REGISTRATION NUMBER: P-43,363  
REFERENCE/DOCKET NUMBER: UTSO:560  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (512) 418-3000  
TELEFAX: (512) 474-7577  
INFORMATION FOR SEQ ID NO: 11:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 4062 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: DNA (genomic)

CLONE: PHNOS  
POSITION IN GENOME:

ORIGINAL SOURCE: NO

ORIGINAL SOURCE:

```

: TISSUE TYPE: Induced Human Hepatocyte RNA
: IMMEDIATE SOURCE:
: LIBRARY: Lambda Zap II CDNA
: CLONE: PHINOS
: POSITION IN GENOME:
: CHROMOSOME/SEGMENT: unknown
: MAP POSITION: unknown
: UNITS: unknown
: FEATURE:
: NAME/KEY: CDS
: LOCATION: 207..3668
: IDENTIFICATION METHOD: Experiment
: US-08-265-046-1

Alignment Scores:
Pred. No.: 6.65 Length: 4145
Score: 55.00 Matches: 9
Percent Similarity: 66.67% Conservative: 3
Best Local Similarity: 50.00% Mismatches: 6
Query Match: 50.46% Indels: 0
DB: 1 Gaps: 0

US-09-371-347A-25 (1-18) x US-08-265-046-1 (1-4145)

Oy 1 GyaAlaMeLTrPLeuPhePheGlyCysArGHisLysAspArgAspTyrLeuPhe 18
Db 3228 GGCCCGATGACCTTGTTGGTGGTGCCGCCGCCAGATGAGACCATCTAC 3281

RESULT 10
: US-08-465-522-1
: Sequence 1, Application US/08465522
: Patent No. 5882908
: GENERAL INFORMATION:
: APPLICANT: Billiar, Timothy R.
: APPLICANT: Nussler, Andreas K.
: APPLICANT: Geller, David A.
: APPLICANT: Simmons, Richard L.
: TITLE OF INVENTION: CDNA Clone for Human Inducible Nitric
: TITLE OF INVENTION: Oxide Synthase And Process for Preparing Same
: NUMBER OF SEQUENCES: 2
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Lewis F. Gould, Jr.
: ADDRESSEE: Eckert Seamans Cherin & Mellott
: STREET: 1700 Market St. Suite 3232
: CITY: Philadelphia
: STATE: PA
: COUNTRY: USA
: ZIP: 19103
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: PatentIn Release #1.0, Version #1.25
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/08/465,522
: FILING DATE:
: CLASSIFICATION: 435
: ATTORNEY/AGENT INFORMATION:
: NAME: Gould, Jr., Lewis F.
: REGISTRATION NUMBER: 25,057
: REFERENCE/DOCKET NUMBER: 116972-6
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (215) 575-6020
: TELEFAX: (215) 575-6015
: TELEX:
: INFORMATION FOR SEQ ID NO: 1:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 4145 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: double
: TOPOLOGY: linear
: MOLECULE TYPE: cDNA
: DESCRIPTION: Human Hepatocyte Inducible Nitric Oxide
```

```

: DESCRIPTION: Synthase cDNA Clone
: HYPOTHETICAL: NO
: ANTI-SENSE: NO
: ORIGINAL SOURCE:
: TISSUE TYPE: Induced Human Hepatocyte RNA
: IMMEDIATE SOURCE:
: LIBRARY: Lambda Zap II CDNA
: CLONE: PHINOS
: POSITION IN GENOME:
: CHROMOSOME/SEGMENT: unknown
: MAP POSITION: unknown
: UNITS: unknown
: FEATURE:
: NAME/KEY: CDS
: LOCATION: 207..3668
: IDENTIFICATION METHOD: Experiment
: US-08-465-522-1

Alignment Scores:
Pred. No.: 6.65 Length: 4145
Score: 55.00 Matches: 9
Percent Similarity: 66.67% Conservative: 3
Best Local Similarity: 50.00% Mismatches: 6
Query Match: 50.46% Indels: 0
DB: 2 Gaps: 0

US-09-371-347A-25 (1-18) x US-08-465-522-1 (1-4145)

Oy 1 GyaAlaMeLTrPLeuPhePheGlyCysArGHisLysAspArgAspTyrLeuPhe 18
Db 3228 GGCCCGATGACCTTGTTGGTGGTGCCGCCGCCAGATGAGACCATCTAC 3281

RESULT 11
: PCT-US93-11401-1
: Sequence 1, Application PCTUS9311401
: GENERAL INFORMATION:
: APPLICANT: Billiar, Timothy R.
: APPLICANT: Nussler, Andreas K.
: APPLICANT: Geller, David A.
: APPLICANT: Simmons, Richard L.
: TITLE OF INVENTION: CDNA Clone for Human Inducible Nitric
: TITLE OF INVENTION: Oxide Synthase And Process for Preparing Same
: NUMBER OF SEQUENCES: 2
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Arnold B. Silverman
: ADDRESSEE: Eckert Seamans Cherin & Mellott
: STREET: 600 Grant Street, 42nd Floor
: CITY: Pittsburgh
: STATE: PA
: COUNTRY: USA
: ZIP: 15219
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: PatentIn Release #1.0, Version #1.25
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: PCT/US93/11401
: FILING DATE: 25-NOV-1992
: CLASSIFICATION:
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: US/07/981,344
: CLASSIFICATION:
: ATTORNEY/AGENT INFORMATION:
: NAME: Silverman, Arnold B.
: REGISTRATION NUMBER: 22,614
: REFERENCE/DOCKET NUMBER: 116972
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (412) 566-6000
: TELEFAX: (412) 566-6099
: TELEX: 866172
: INFORMATION FOR SEQ ID NO: 1:
: SEQUENCE CHARACTERISTICS:
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LENGTH: 4145 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: CDNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
ORIGINAL SOURCE:  
TISSUE TYPE: Induced Human Hepatocyte RNA  
IMMEDIATE SOURCE:  
LIBRARY: Lambda Zap II CDNA  
CLONE: PHINOS  
POSITION IN GENOME:  
CHROMOSOME/SEGMENT: unknown  
MAP POSITION: unknown  
UNITS: unknown  
FEATURE:  
NAME/KEY: CDS  
LOCATION: 207..3668  
IDENTIFICATION METHOD: Experiment  
PCT-US93-11401-1

Alignment Scores:  
Pred. No.: 6.65 Length: 4145  
Score: 55.00 Matches: 9  
Percent Similarity: 66.67% Conservative: 3  
Best Local Similarity: 50.00% Mismatches: 6  
Query Match: 50.46% Indels: 0  
DB: 5 Gaps: 0

US-09-371-347a-25 (1-18) x PCT-US93-11401-1 (1-4145)

Qy 1 GYAlaMeTtPLeuPhEgHeLyCysArGHISLysAsPaRgAsPtyrLeuPhe 18  
Db 3228 GCCCGCATGACCTTGTTGGTGGTCCGCCGCCAGATGAGACACATCTAC 3281

## RESULT 12

PCT-US95-07849-1

; Sequence 1, Application PC/TUS9507849  
; GENERAL INFORMATION:  
; APPLICANT: University of Pittsburgh of the Commonwealth System of Higher  
; APPLICANT: Education  
; TITLE OF INVENTION: Inducible Nitric Oxide Synthase  
; TITLE OF INVENTION: Gene for Treatment of Disease  
; NUMBER OF SEQUENCES: 2  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Lewis F. Gould, Jr.  
; STREET: 1700 Market Street, Suite 3232  
; CITY: Philadelphia  
; STATE: PA  
; COUNTRY: USA  
; ZIP: 19103  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patent Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: PCT/US95/07849  
; FILING DATE:  
; CLASSIFICATION:  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Gould, Lewis F. Jr.  
; REGISTRATION NUMBER: 25,057  
; REFERENCE/DOCKET NUMBER: 119130-2  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (215) 575-6020  
; TELEFAX: (215) 575-6015  
; TELEX:  
; INFORMATION FOR SEQ ID NO: 1:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 4145 base pairs

TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: CDNA  
DESCRIPTION: Human Hepatocyte Inducible Nitric Oxide  
SYNTHASE CDNA CLONE  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
ORIGINAL SOURCE:  
TISSUE TYPE: Induced Human Hepatocyte RNA  
IMMEDIATE SOURCE:  
LIBRARY: Lambda Zap II CDNA  
CLONE: PHINOS  
POSITION IN GENOME:  
CHROMOSOME/SEGMENT: unknown  
MAP POSITION: unknown  
UNITS: unknown  
FEATURE:  
NAME/KEY: CDS  
LOCATION: 207..3668  
IDENTIFICATION METHOD: Experiment  
PCT-US95-07849-1

Alignment Scores:  
Pred. No.: 6.65 Length: 4145  
Score: 55.00 Matches: 9  
Percent Similarity: 66.67% Conservative: 3  
Best Local Similarity: 50.00% Mismatches: 6  
Query Match: 50.46% Indels: 0  
DB: 5 Gaps: 0

US-09-371-347a-25 (1-18) x PCT-US95-07849-1 (1-4145)

Qy 1 GYAlaMeTtPLeuPhEgHeLyCysArGHISLysAsPaRgAsPtyrLeuPhe 18  
Db 3228 GCCCGCATGACCTTGTTGGTGGTCCGCCGCCAGATGAGACACATCTAC 3281

## RESULT 13

US-09-134-001C-1557

; Sequence 1557, Application US/09134001C  
; Patent No. 6380370  
; GENERAL INFORMATION:  
; APPLICANT: Lynn Doucette-Stamm et al  
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCC  
; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS  
; FILE REFERENCE: GTC-007  
; CURRENT APPLICATION NUMBER: US/09/134,001C  
; CURRENT FILING DATE: 1998-08-13  
; PRIOR APPLICATION NUMBER: US 60/064,964  
; PRIOR FILING DATE: 1997-11-08  
; PRIOR APPLICATION NUMBER: US 60/055,779  
; PRIOR FILING DATE: 1997-08-14  
; NUMBER OF SEQ ID NOS: 5674  
; SEQ ID NO 1557  
; LENGTH: 1890  
; TYPE: DNA  
; ORGANISM: Staphylococcus epidermidis  
US-09-134-001C-1557

Alignment Scores:  
Pred. No.: 5.75 Length: 1890  
Score: 53.00 Matches: 9  
Percent Similarity: 66.67% Conservative: 3  
Best Local Similarity: 50.00% Mismatches: 6  
Query Match: 48.62% Indels: 0  
DB: 4 Gaps: 0

US-09-371-347a-25 (1-18) x US-09-134-001C-1557 (1-1890)

Qy 1 GYAlaMeTtPLeuPhEgHeLyCysArGHISLysAsPaRgAsPtyrLeuPhe 18  
Db 1531 GGAATACATGTTATCTTTGGAGATCAACACTTCACTACAGATTTCTGTAT 1584

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RESULT 14
US-09-302-620B-82
: Sequence 82, Application US/09302620B
: Patent No. 6331420
: GENERAL INFORMATION:
: APPLICANT: Wilson, C. Ron
: APPLICANT: Craft, David L.
: APPLICANT: Eitlich, Dudley
: APPLICANT: Eshoo, Mark
: APPLICANT: Madduri, Krishna M.
: APPLICANT: Cornett, Cathy A.
: APPLICANT: Brenner, Alfred A.
: APPLICANT: Tang, Maria
: APPLICANT: Loper, John C.
: APPLICANT: Gleeson, Martin
: TITLE OF INVENTION: CYTOCHROME P450 MONOOXYGENASE AND NADPH CYTOCHROME P450
: TITLE OF INVENTION: OXIDOREDUCTASE GENES AND PROTEINS RELATED TO THE OMEGA
: TITLE OF INVENTION: HYDROXYLASE COMPLEX OF CANDIDA TROPICALIS AND METHODS
: FILE REFERENCE: 1010-16.seq
: CURRENT APPLICATION NUMBER: US/09/302,620B
: CURRENT FILING DATE: 1999-04-30
: NUMBER OF SEQ ID NOS: 109
: SOFTWARE: PatentIn Ver. 2.1
: SEQ ID NO 82
: LENGTH: 4145
: TYPE: DNA
: ORGANISM: Candida tropicalis
US-09-302-620B-82

Alignment Scores:
Pred. NO.: 14.9 Length: 4145
Score: 53.00 Matches: 8
Percent Similarity: 72.22% Conservative: 5
Best Local Similarity: 44.44% Mismatches: 5
Query Match: 48.62% Indels: 0
DB: 4 Gaps: 0

US-09-371-347A-25 (1-18) x US-09-302-620B-82 (1-4145)
Qy 1 GlyAlaMetTrpLeuPheGlyCysArgHisLysAspArgAspTyrLeuPhe 18
Db 2707 GGCAAGACTTGTGTTTATGTTGCGAAGAACTCCAGAGACTTTTGTAC 2760

RESULT 15
US-09-302-620B-81
: Sequence 81, Application US/09302620B
: Patent No. 6331420
: GENERAL INFORMATION:
: APPLICANT: Wilson, C. Ron
: APPLICANT: Craft, David L.
: APPLICANT: Eitlich, Dudley
: APPLICANT: Eshoo, Mark
: APPLICANT: Madduri, Krishna M.
: APPLICANT: Cornett, Cathy A.
: APPLICANT: Brenner, Alfred A.
: APPLICANT: Tang, Maria
: APPLICANT: Loper, John C.
: APPLICANT: Gleeson, Martin
: TITLE OF INVENTION: CYTOCHROME P450 MONOOXYGENASE AND NADPH CYTOCHROME P450
: TITLE OF INVENTION: OXIDOREDUCTASE GENES AND PROTEINS RELATED TO THE OMEGA
: TITLE OF INVENTION: HYDROXYLASE COMPLEX OF CANDIDA TROPICALIS AND METHODS
: FILE REFERENCE: 1010-16.seq
: CURRENT APPLICATION NUMBER: US/09/302,620B
: CURRENT FILING DATE: 1999-04-30
: NUMBER OF SEQ ID NOS: 109
: SOFTWARE: PatentIn Ver. 2.1
: SEQ ID NO 81
: LENGTH: 4206
: TYPE: DNA
: ORGANISM: Candida tropicalis
US-09-302-620B-81
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Alignment Scores:
Pred. NO.: 15.1 Length: 4206
Score: 53.00 Matches: 8
Percent Similarity: 72.22% Conservative: 5
Best Local Similarity: 44.44% Mismatches: 5
Query Match: 48.62% Indels: 0
DB: 4 Gaps: 0

US-09-371-347A-25 (1-18) x US-09-302-620B-81 (1-4206)
Qy 1 GlyAlaMetTrpLeuPheGlyCysArgHisLysAspArgAspTyrLeuPhe 18
Db 2680 GGCAAGACTTGTGTTTATGTTGCGAAGAACTCCAGAGACTTTTGTAC 2733

Search completed: July 29, 2003, 23:04:05
Job time : 43 secs
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GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: July 29, 2003, 10:56:19 ; Search time 425.084 Seconds  
(without alignments)  
10177.082 Million cell updates/sec

Title: US-09-371-347A-41

Perfect score: 2097  
Sequence: 1 atgagagaggttcgtctact.....ttcagatattgttcataa 2097

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 1439767 seqs, 1031500376 residues

Total number of hits satisfying chosen parameters: 2879534

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published\_Applications\_NA:\*

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2: /cgn2\_6/ptodata/2/pubpna/PCT\_NEW\_PUB.seq:\*  
3: /cgn2\_6/ptodata/2/pubpna/US06\_PUB\_PUB.seq:\*  
4: /cgn2\_6/ptodata/2/pubpna/US06\_PUBCOMB.seq:\*  
5: /cgn2\_6/ptodata/2/pubpna/US07\_NEW\_PUB.seq:\*  
6: /cgn2\_6/ptodata/2/pubpna/PCTUS\_PUBCOMB.seq:\*  
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13: /cgn2\_6/ptodata/2/pubpna/US09\_PUBCOMB.seq:\*  
14: /cgn2\_6/ptodata/2/pubpna/US10\_NEW\_PUB.seq:\*  
15: /cgn2\_6/ptodata/2/pubpna/US10\_PUBCOMB.seq:\*  
16: /cgn2\_6/ptodata/2/pubpna/US60\_NEW\_PUB.seq:\*  
17: /cgn2\_6/ptodata/2/pubpna/US60\_PUBCOMB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2097	100.0	2097	US-09-371-347-41	Sequence 41, Appl
2	2095.4	99.9	2097	US-09-371-347-1	Sequence 1, Appl
3	2095.4	99.9	3259	US-09-371-347-24	Sequence 24, Appl
4	2093.8	99.8	2097	US-09-371-347-43	Sequence 43, Appl
5	2079.4	99.2	2094	US-09-371-347-45	Sequence 45, Appl
6	2077.4	99.1	2093	US-09-371-347-47	Sequence 47, Appl
7	174.4	8.3	2475	US-09-909-567B-38	Sequence 38, Appl
8	88.6	4.2	1872	US-09-917-800A-1351	Sequence 1351, Ap
9	88.6	4.2	2401	US-09-917-800A-1397	Sequence 1397, Ap
10	83.8	4.0	101	US-09-783-590-1364	Sequence 1364, Ap
11	61	2.9	298	US-09-294-093B-4842	Sequence 4842, Ap
12	59.6	2.8	2470	US-09-832-849A-278	Sequence 278, Ap
13	58.4	2.8	230	US-09-923-876-2845	Sequence 2845, Ap
14	57.2	2.7	13508	US-08-781-986A-120	Sequence 120, Appl
15	56	2.7	2136	US-09-938-842A-803	Sequence 803, Appl
16	54.8	2.6	2403	US-09-880-107-3039	Sequence 3039, Appl

17	53.6	2.6	1863	10	US-09-765-873A-13	Sequence 13, Appl
18	52.2	2.5	411	10	US-09-925-299-440	Sequence 440, Appl
19	52.2	2.5	411	12	US-09-925-299-440	Sequence 440, Appl
20	50.6	2.4	2088	15	US-10-128-714-7234	Sequence 7234, Appl
21	50.2	2.4	1448	10	US-09-939-980-113	Sequence 113, Appl
22	49.2	2.3	1944	15	US-10-272-017A-4	Sequence 4, Appl
23	49.2	2.3	3037	10	US-09-911-781-3	Sequence 3, Appl
24	49.2	2.3	4145	10	US-09-911-781-3	Sequence 3, Appl
25	49.2	2.3	4145	12	US-09-976-800-82	Sequence 82, Appl
26	49.2	2.3	4145	15	US-10-138-838-82	Sequence 82, Appl
27	49.2	2.3	4145	15	US-10-139-031-82	Sequence 82, Appl
28	49.2	2.3	4145	15	US-10-138-905-82	Sequence 82, Appl
29	49.2	2.3	4145	15	US-10-138-916-82	Sequence 82, Appl
30	47.6	2.3	1791	11	US-09-778-319-1	Sequence 1, Appl
31	47.6	2.3	4957	15	US-10-201-213-1	Sequence 1, Appl
32	46.4	2.2	1845	15	US-10-128-714-1234	Sequence 1234, Appl
33	46.4	2.2	1845	15	US-10-128-714-2234	Sequence 2234, Appl
34	46.4	2.2	2145	15	US-10-128-714-5234	Sequence 5234, Appl
35	46.4	2.2	3845	15	US-10-128-714-234	Sequence 234, Appl
36	46.4	2.2	4145	15	US-10-128-714-5234	Sequence 5234, Appl
37	46	2.2	1944	15	US-10-272-017A-1	Sequence 1, Appl
38	46	2.2	4206	10	US-09-911-781-2	Sequence 2, Appl
39	46	2.2	4206	12	US-09-976-800-81	Sequence 81, Appl
40	46	2.2	4206	15	US-10-138-838-81	Sequence 81, Appl
41	46	2.2	4206	15	US-10-139-031-81	Sequence 81, Appl
42	46	2.2	4206	15	US-10-138-905-81	Sequence 81, Appl
43	46	2.2	4206	15	US-10-138-916-81	Sequence 81, Appl
44	46	2.2	640681	11	US-09-790-988-1	Sequence 1, Appl
45	42.4	2.0	413	12	US-09-918-995-32917	Sequence 32917, A

## ALIGNMENTS

RESULT 1  
US-09-371-347-41  
Sequence 41, Application US/09371347  
Publication No. US20030082676A1  
GENERAL INFORMATION:  
APPLICANT: Roy A. Gravel et al.  
TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE;  
TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
TITLE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER  
FILE REFERENCE: 50004/003003  
CURRENT APPLICATION NUMBER: US/09/371,347  
CURRENT FILING DATE: 1999-08-10  
PRIOR APPLICATION NUMBER: 60/071,622  
PRIOR FILING DATE: 1998-01-16  
PRIOR APPLICATION NUMBER: 09/232,028  
PRIOR FILING DATE: 1999-01-15  
NUMBER OF SEQ ID NOS: 51  
SOFTWARE: FASTSEQ for Windows Version 4.0  
SEQ ID NO 41  
LENGTH: 2097  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-371-347-41

Query Match 100.0%; Score 2097; DB 12; Length 2097;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2097; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAGGTTCTGTTACTATATGCTACACGACGAGGCAAGGCCATCCAGAA 60  
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DB 1 ATGAGAGGTTCTGTTACTATATGCTACACGACGAGGCAAGGCCATCCAGAA 60  
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QY 61 GAAATATGAGACCAAGCTGTGATCATGATGATTTTCGAGATCTTCACTGTTAGTGA 120  
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DB 61 GAAATATGAGACCAAGCTGTGATCATGATGATTTTCGAGATCTTCACTGTTAGTGA 120  
|||||  
QY 121 TCCGATAGTATGACCTAAACCAAGACGCTCTGTTGTGTGTTCTTACACAG 180  
|||||  
DB 121 TCCGATAGTATGACCTAAACCAAGACGCTCTGTTGTGTGTTCTTACACAG 180  
|||||

181 GGCACCGAGAGACCCAGACAGACCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240  
181 GGCACCGAGAGACCCAGACAGACCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240  
241 CTGCCGGTGAATTTCTTCTGCTCAGCTGCGGTATGCGTTACTGCGTCTCGGTATTCAGAA 300  
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301 TACACCTACTTTTGAATGGGGGAGAAATTTGAATTAACGACTTCAGAGCTTGGAGCC 360  
301 TACACCTACTTTTGAATGGGGGAGAAATTTGAATTAACGACTTCAGAGCTTGGAGCC 360  
361 CGGCAATTTCTATGACACTGACATGCAATGACTGTGAGTTTGAAGCTTGTGTTAG 420  
361 CGGCAATTTCTATGACACTGACATGCAATGACTGTGAGTTTGAAGCTTGTGTTAG 420  
421 CCGTGGATTTGCTGACCTGCGCAGCCCTCAGAAACATTTTATGTCAGAGAGACAA 480  
421 CCGTGGATTTGCTGACCTGCGCAGCCCTCAGAAACATTTTATGTCAGAGAGACAA 480  
481 GAGAGATAGTGGGCGACCTCCGGTGGATCAGCTGATCCTTGGAGAGAGACCTTGTG 540  
481 GAGAGATAGTGGGCGACCTCCGGTGGATCAGCTGATCCTTGGAGAGAGACCTTGTG 540  
541 AAGTCAGAGCTGCTACACATTGAATCTCAGTGCAGCTTCTGAGATTCGATGATTCAGGA 600  
541 AAGTCAGAGCTGCTACACATTGAATCTCAGTGCAGCTTCTGAGATTCGATGATTCAGGA 600  
601 AGAAAGATTTCTGAGGTTTGAAGCAAAATGCAAGAACAGCAACCAATTCATTTGTA 660  
601 AGAAAGATTTCTGAGGTTTGAAGCAAAATGCAAGAACAGCAACCAATTCATTTGTA 660  
661 ATTGAAGCTTTGAGTCTCCTACCTTCCGCTGCGATACCCCACTCTCAAGCCCTCTGTG 720  
661 ATTGAAGCTTTGAGTCTCCTACCTTCCGCTGCGATACCCCACTCTCAAGCCCTCTGTG 720  
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781 GAGGAAAGCCAAAGTATCTGCTGACAGATCCAGTTTTCAGAGTCCCAATTTCAAG 840  
841 GCAGTCAACTTACTAGCAATGATGCCATTAACCACTCTCTGCTGATGAAATGACACTT 900  
841 GCAGTCAACTTACTAGCAATGATGCCATTAACCACTCTCTGCTGATGAAATGACACTT 900  
901 TCAATATACAGCTTTTCTATCAGCTGAGATGCTTCCAGCTGATCTGCCCTTAACAGT 960  
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961 GATTCGAGGTACAAAGCTCTCCAAAGACTGACGCTTGAAGATTAAGAGAGAGAGAGC 1020  
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1021 GTCTTTTGAATAAAGGAGACACAAGAAAGAGAGCTTACCTTACCCAGCATATA 1080  
1021 GTCTTTTGAATAAAGGAGACACAAGAAAGAGAGCTTACCTTACCCAGCATATA 1080  
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1141 AAAAAGCATTTTTCGAGCCCTTGTGACTATACAGTGCAGGCTGAAAAGGCGAGG 1200  
1141 AAAAAGCATTTTTCGAGCCCTTGTGACTATACAGTGCAGGCTGAAAAGGCGAGG 1200  
1201 CTACAGAGCTGTGAGTAACAAGGAGGAGCCGATTTATAGCGGCTTGTAGAGATCC 1260  
1201 CTACAGAGCTGTGAGTAACAAGGAGGAGCCGATTTATAGCGGCTTGTAGAGATCC 1260

1261 TGTGCTGCTTTGTTGATCTCTCCGCTTTTCCCTTCTGCGACCCACCACTAGTCTC 1320  
1261 TGTGCTGCTTTGTTGATCTCTCCGCTTTTCCCTTCTGCGACCCACCACTAGTCTC 1320  
1321 CTGCTGCAACATCTTCTTAACCTTCAACCCAGACCAATATTCGTGCAAGCTCAAGTTTA 1380  
1321 CTGCTGCAACATCTTCTTAACCTTCAACCCAGACCAATATTCGTGCAAGCTCAAGTTTA 1380  
1381 TTTTACCCGAGAAACCTCATTTTCTTCAACATTTGGAATTTCTCTACTGCCACA 1440  
1381 TTTTACCCGAGAAACCTCATTTTCTTCAACATTTGGAATTTCTCTACTGCCACA 1440  
1441 ACAGAGTTTCTGCGAGAGGAGATATGATACAGCTGCTGCGCTTGTGTTGCTTCACTT 1500  
1441 ACAGAGTTTCTGCGAGAGGAGATATGATACAGCTGCTGCGCTTGTGTTGCTTCACTT 1500  
1501 CTTACGCCAATATCATGATCCCATGAGAGAGCGGAAAGCCCTGCTCTTAAGATA 1560  
1501 CTTACGCCAATATCATGATCCCATGAGAGAGCGGAAAGCCCTGCTCTTAAGATA 1560  
1561 TCCATCTCTGCGAGACAAATCTTCCACTTACAGATGACAGATGACCCCTCAATCCCATC 1620  
1561 TCCATCTCTGCGAGACAAATCTTCCACTTACAGATGACAGATGACCCCTCAATCCCATC 1620  
1621 ATATGCTGCTGCTCAGAGACCGGATACCCGCTTATTTGGTCTCTCAACATAGAGAG 1680  
1621 ATATGCTGCTGCTCAGAGACCGGATACCCGCTTATTTGGTCTCTCAACATAGAGAG 1680  
1681 AATCTCAGAGAACCAACCCAGAGTGAATTTTGGAGCAATGTGTTTGTGCTGC 1740  
1681 AATCTCAGAGAACCAACCCAGAGTGAATTTTGGAGCAATGTGTTTGTGCTGC 1740  
1741 AGGCTAAGATGAGGATTTATCTTCAAGAAAGCTCAGACATTTCTTAAGCATGG 1800  
1741 AGGCTAAGATGAGGATTTATCTTCAAGAAAGCTCAGACATTTCTTAAGCATGG 1800  
1801 ATCTTACTCATTAAGGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAACCC 1860  
1801 ATCTTACTCATTAAGGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAACCC 1860  
1861 CCAGCAAGTATGTACAAGACAACTCCAGCTTATGCTCAGAGAGTGGCAGATCTCTC 1920  
1861 CCAGCAAGTATGTACAAGACAACTCCAGCTTATGCTCAGAGAGTGGCAGATCTCTC 1920  
1921 CTCCAGAGAGAGGCGCATATTTATGCTGAGATGCAAAAGATATGAGCAAGATGTA 1980  
1921 CTCCAGAGAGAGGCGCATATTTATGCTGAGATGCAAAAGATATGAGCAAGATGTA 1980  
1981 CATGATGCCCTTGTCAATATTAAGCAAGAGGTTGAGATTAAGAACTGAAAGCAATG 2040  
1981 CATGATGCCCTTGTCAATATTAAGCAAGAGGTTGAGATTAAGAACTGAAAGCAATG 2040  
2041 AAAACCTGCGCACCTTTAAAGAGAAAGAAAGAGCTTCACTTCAAGATATTGTGCATAA 2097  
2041 AAAACCTGCGCACCTTTAAAGAGAAAGAAAGAGCTTCACTTCAAGATATTGTGCATAA 2097

RESULT 2  
US-09-371-347-1  
; Sequence 1, Application US/09371347  
; Publication No. US20030082676A1  
; GENERAL INFORMATION:  
; APPLICANT: Roy A. Gravel et al.  
; TITLE OF INVENTION: HUMAN METHYLONLINE SYNTHASE REDUCTASE:  
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
; DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER  
; FILE REFERENCE: 50004/003003  
; CURRENT APPLICATION NUMBER: US/09/371,347  
; CURRENT FILING DATE: 1999-08-10  
; PRIOR APPLICATION NUMBER: 60/071,632  
; PRIOR FILING DATE: 1998-01-16  
; PRIOR APPLICATION NUMBER: 09/232,028  
; PRIOR FILING DATE: 1999-01-15



NUMBER OF SEQ ID NOS: 51  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO: 1  
LENGTH: 2097  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-371-347-1

Query Match 99.9%; Score 2095.4; DB 12; Length 2097;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2096; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

1 ATGAGAGGTTCTCTGTTACTATATGCTACACAGCAGGAGGAGGCAAGGCAATCGAGAA 60  
1 ATGAGAGGTTCTCTGTTACTATATGCTACACAGCAGGAGGAGGCAAGGCAATCGAGAA 60  
61 GAAATGTGTGACCAAGCTGTGTGATGATTTTTCGAGATCTTCTCATGTTTACTGAA 120  
61 GAAATGTGTGACCAAGCTGTGTGATGATTTTTCGAGATCTTCTCATGTTTACTGAA 120  
121 TCCGATAGTATGACCTTAAACCCGAAACAGCTCTGTTGTTGTTGTTTCTACAG 180  
121 TCCGATAGTATGACCTTAAACCCGAAACAGCTCTGTTGTTGTTGTTTCTACAG 180  
181 GGCACCGGAGACCCGACACAGCCGCAAGTTTGTAAAGAAATACAGAAACAAACA 240  
181 GGCACCGGAGACCCGACACAGCCGCAAGTTTGTAAAGAAATACAGAAACAAACA 240  
181 GGCACCGGAGACCCGACACAGCCGCAAGTTTGTAAAGAAATACAGAAACAAACA 240  
241 CTGCGGTTGATTTCTTTCTGCTACCTGCGGATGGGTTACTGGGTTCTGGTATAGAA 300  
241 CTGCGGTTGATTTCTTTCTGCTACCTGCGGATGGGTTACTGGGTTCTGGTATAGAA 300  
301 TACACCTACTTTTGAATGGGGAGATATATGATTAAGCAAGCTTCAAGCTTGGAGCC 360  
301 TACACCTACTTTTGAATGGGGAGATATATGATTAAGCAAGCTTCAAGCTTGGAGCC 360  
301 TACACCTACTTTTGAATGGGGAGATATATGATTAAGCAAGCTTCAAGCTTGGAGCC 360  
361 GCGCATTTCTATGACACTGACATGAGATGATGATGATGATGATGATGATGATGATG 420  
361 GCGCATTTCTATGACACTGACATGAGATGATGATGATGATGATGATGATGATGATG 420  
421 CCGTGATGCTGAGACTGCGGACGCTCAGAAACATTTTATGATGATGATGATGATGAT 480  
421 CCGTGATGCTGAGACTGCGGACGCTCAGAAACATTTTATGATGATGATGATGATGAT 480  
421 CCGTGATGCTGAGACTGCGGACGCTCAGAAACATTTTATGATGATGATGATGATGAT 480  
481 GAGGAGATAGTGGGACCTCCGCGTGGCATCTGATCCTTGGAGAGAGACTTGTG 540  
481 GAGGAGATAGTGGGACCTCCGCGTGGCATCTGATCCTTGGAGAGAGACTTGTG 540  
481 GAGGAGATAGTGGGACCTCCGCGTGGCATCTGATCCTTGGAGAGAGACTTGTG 540  
541 AAGTCAGAGCTGTACATGATGATCTCAAGTCGAGCTTCTGATGATGATGATGATG 600  
541 AAGTCAGAGCTGTACATGATGATCTCAAGTCGAGCTTCTGATGATGATGATGATG 600  
541 AAGTCAGAGCTGTACATGATGATCTCAAGTCGAGCTTCTGATGATGATGATGATG 600  
601 AGAAGAGATTTGAGTTTGAAGCAAAATGCAAGTAAACAGCAACCAATTCATTTGTA 660  
601 AGAAGAGATTTGAGTTTGAAGCAAAATGCAAGTAAACAGCAACCAATTCATTTGTA 660  
601 AGAAGAGATTTGAGTTTGAAGCAAAATGCAAGTAAACAGCAACCAATTCATTTGTA 660  
661 ATTGAAGACTTTAGTCTACCTTACCGTGGGATCCCACTCTCAGAGAGCTTCTG 720  
661 ATTGAAGACTTTAGTCTACCTTACCGTGGGATCCCACTCTCAGAGAGCTTCTG 720  
661 ATTGAAGACTTTAGTCTACCTTACCGTGGGATCCCACTCTCAGAGAGCTTCTG 720  
721 AATATTCCTGTTTACCCCGAATATTTACAGATGATGATGATGATGATGATGATG 780  
721 AATATTCCTGTTTACCCCGAATATTTACAGATGATGATGATGATGATGATGATG 780  
721 AATATTCCTGTTTACCCCGAATATTTACAGATGATGATGATGATGATGATGATG 780  
781 GAGGAGAGCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 840  
781 GAGGAGAGCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 840  
781 GAGGAGAGCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 840  
841 GCAGTTCAACTTACTAGATGATGATGATGATGATGATGATGATGATGATGATGATG 900  
841 GCAGTTCAACTTACTAGATGATGATGATGATGATGATGATGATGATGATGATGATG 900  
841 GCAGTTCAACTTACTAGATGATGATGATGATGATGATGATGATGATGATGATGATG 900  
901 TCAATATACAGACTTTTCTATACGCTTGAGATGCTTCAAGCTGATGCTTCAACAGT 960

|||||  
901 TCAATATACAGACTTTTCTATACGCTTGAGATGCTTCAAGCTGATGCTTCAACAGT 960  
961 GATTCGAGTACAAAGCTTACCTCAAGACCTGAGATGATGATGATGATGATGATGATG 1020  
961 GATTCGAGTACAAAGCTTACCTCAAGACCTGAGATGATGATGATGATGATGATGATG 1020  
961 GATTCGAGTACAAAGCTTACCTCAAGACCTGAGATGATGATGATGATGATGATGATG 1020  
1021 GTCTTTTGAATAAATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1080  
1021 GTCTTTTGAATAAATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1080  
1021 GTCTTTTGAATAAATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1080  
1081 CCGCGGAGTGTCTCTCAAGTTCAATTTTACCTGCTGCTTGAATTCGAGCAATTCCT 1140  
1081 CCGCGGAGTGTCTCTCAAGTTCAATTTTACCTGCTGCTTGAATTCGAGCAATTCCT 1140  
1081 CCGCGGAGTGTCTCTCAAGTTCAATTTTACCTGCTGCTTGAATTCGAGCAATTCCT 1140  
1141 AAAAGGCAATTTTGGAGCCCTTGGAGCTATACAGAGGAGGAGGAGGAGGAGGAGG 1200  
1141 AAAAGGCAATTTTGGAGCCCTTGGAGCTATACAGAGGAGGAGGAGGAGGAGGAGG 1200  
1141 AAAAGGCAATTTTGGAGCCCTTGGAGCTATACAGAGGAGGAGGAGGAGGAGGAGG 1200  
1201 CTACAGAGCTGTGAGTAAACAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1260  
1201 CTACAGAGCTGTGAGTAAACAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1260  
1201 CTACAGAGCTGTGAGTAAACAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1260  
1261 TGTGCTGCTGTTGATGATCTCTGCTGCTTCCCTTCCAGGACCACTCACTGCTC 1320  
1261 TGTGCTGCTGTTGATGATCTCTGCTGCTTCCCTTCCAGGACCACTCACTGCTC 1320  
1261 TGTGCTGCTGTTGATGATCTCTGCTGCTTCCCTTCCAGGACCACTCACTGCTC 1320  
1321 CTGCTGAGCAATCTTCAACTCAACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1380  
1321 CTGCTGAGCAATCTTCAACTCAACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1380  
1321 CTGCTGAGCAATCTTCAACTCAACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1380  
1381 TTTCAACCCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1440  
1381 TTTCAACCCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1440  
1381 TTTCAACCCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1440  
1441 ACAGAGGTTCTGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1500  
1441 ACAGAGGTTCTGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1500  
1441 ACAGAGGTTCTGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1500  
1501 CTTGAGGCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1560  
1501 CTTGAGGCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1560  
1501 CTTGAGGCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1560  
1561 TCCATCTCTCTGAGCAACCAATTTCTTCACTTACAGATGATGATGATGATGATG 1620  
1561 TCCATCTCTCTGAGCAACCAATTTCTTCACTTACAGATGATGATGATGATGATGATG 1620  
1561 TCCATCTCTCTGAGCAACCAATTTCTTCACTTACAGATGATGATGATGATGATGATG 1620  
1621 ATATGAGTGGTCCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1680  
1621 ATATGAGTGGTCCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1680  
1621 ATATGAGTGGTCCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1680  
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1741 AGGCAATGAGGATGAGGATGATGATGATGATGATGATGATGATGATGATGATGATG 1800  
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1741 AGGCAATGAGGATGAGGATGATGATGATGATGATGATGATGATGATGATGATGATG 1800  
1801 ATCTTAATCTATTAAGGTTTCTCTCAAGAGATGCTCTTGGGAGGAGGAGGAGG 1860  
1801 ATCTTAATCTATTAAGGTTTCTCTCAAGAGATGCTCTTGGGAGGAGGAGGAGGAGG 1860  
1801 ATCTTAATCTATTAAGGTTTCTCTCAAGAGATGCTCTTGGGAGGAGGAGGAGGAGG 1860  
1861 CCAGCAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1920  
1861 CCAGCAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1920  
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1921 CTCAGAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1980  
1921 CTCAGAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1980  
1921 CTCAGAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1980  
1981 CATGATGCTTGTGCAATATATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 2040  
1981 CATGATGCTTGTGCAATATATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 2040

Db 1981 CAGATGCGCTTGTCAATATATAGCAAGAGGTTGAGTTGAAAACTAGAACATG 2040  
QY 2041 AAAACCTGGCCACTTTAAAAAGAAAGAAAGCCTACTCTAGCATATTTGGCTATA 2097  
Db 2041 AAAACCTGGCCACTTTAAAAAGAAAGAAAGCCTACTCTAGCATATTTGGCTATA 2097

RESULT 3  
US-09-371-347-24  
Sequence 24, Application US/09371347  
Publication No. US2003082676A1  
GENERAL INFORMATION:  
APPLICANT: Roy A. Gravel et al.  
TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:  
TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER  
FILE REFERENCE: 50004/003003  
CURRENT APPLICATION NUMBER: US/09/371.347  
PRIOR FILING DATE: 1999-08-10  
PRIOR APPLICATION NUMBER: 60/071,622  
PRIOR FILING DATE: 1998-01-16  
PRIOR APPLICATION NUMBER: 09/232,028  
NUMBER OF SEQ ID NOS: 51  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 24  
LENGTH: 3259  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-371-347-24

Query Match 99.9%; Score 2095.4; DB 12; Length 3259;  
Best Local Similarity 100.0%; Pred No. 0;  
Matches 2096; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGAGAGGTTTCTGTACTATATGCTACACAGCAGCAGCAGCAAGCCATCGCAGAA 60  
Db 80 ATGAGAGGTTTCTGTACTATATGCTACACAGCAGCAGCAGCAAGCCATCGCAGAA 139  
QY 61 GAAATGTGAGCAACCTGTGACATGATTTTCTGACATCTTACTGATTAAGTAA 120  
Db 140 GAAATGTGAGCAACCTGTGACATGATTTTCTGACATCTTACTGATTAAGTAA 199  
QY 121 TCCGATTAAGTAAACCCGAAAGAGCTCTCTGTTGTTGTTGTTCTACACAG 180  
Db 200 TCCGATTAAGTAAACCCGAAAGAGCTCTCTGTTGTTGTTGTTCTACACAG 259  
QY 181 GGCACCGGAGCCACCCGACACAGCCGCAAGTTTGAAGAAATACAGAACCAACA 240  
Db 260 GGCACCGGAGCCACCCGACACAGCCGCAAGTTTGAAGAAATACAGAACCAACA 319  
QY 241 CTGGCGGTGATTTCTTGTCTCAGCTGGCGGTATGGGTTACTGGGTCTGGTATTCAGAA 300  
Db 320 CTGGCGGTGATTTCTTGTCTCAGCTGGCGGTATGGGTTACTGGGTCTGGTATTCAGAA 379  
QY 301 TACACCTACTTTTGAATGGGGGAAGATTAATTGAACGACTTCAGAGCTTGGAGCC 360  
Db 380 TACACCTACTTTTGAATGGGGGAAGATTAATTGAACGACTTCAGAGCTTGGAGCC 439  
QY 361 CGGCATTTCTATGACATGAGCATGAGTGAAGTTTGAAGTTTGAAGTTTGGTTAG 420  
Db 440 CGGCATTTCTATGACATGAGCATGAGTGAAGTTTGAAGTTTGAAGTTTGGTTAG 499  
QY 421 CCGTGAATTTGCTGAGCTGTGGCAGCCCTCAGAAAGCATTTTASGTCAAGCAGAGACAA 480  
Db 500 CCGTGAATTTGCTGAGCTGTGGCAGCCCTCAGAAAGCATTTTASGTCAAGCAGAGACAA 559  
QY 481 GAGGAGATTAAGTGGGAGCTCCCGGTGGATCACTGATCCTTAGAGACAGACTTGG 540  
Db 560 GAGGAGATTAAGTGGGAGCTCCCGGTGGATCACTGATCCTTAGAGACAGACTTGG 619  
QY 541 AAGTCAGAGCTGCTACATTAATCTCAAGTCGAGTTCTGAGATTGATGATTCAGGA 600

Db 620 AAGTCAGAGCTGCTACACATTAATCTCAAGTCGAGTTCTGAGATTGATGATTCAGGA 679  
QY 601 AGAAGGATTTCTGAGTTTGAAGCAAAATGACAGTGAACAGCAACCAATCATAGTTGTA 660  
Db 680 AGAAGGATTTCTGAGTTTGAAGCAAAATGACAGTGAACAGCAACCAATCATAGTTGTA 739  
QY 661 ATTGAAGCTTTGAGTCTCAGCTTACCCGTTGGGTACCCCACTCTCAGAGCTCTG 720  
Db 740 ATTGAAGCTTTGAGTCTCAGCTTACCCGTTGGGTACCCCACTCTCAGAGCTCTG 799  
QY 721 AATATTCCTGTTTACCCCAAGAAATTTTACAGTATCTGACAGAGTCTTGGCCAG 780  
Db 800 AATATTCCTGTTTACCCCAAGAAATTTTACAGTATCTGACAGAGTCTTGGCCAG 859  
QY 781 GAGGAAAGCAAGTATCTGAGTCAAGCATTCAGTTTGAAGTCAATTTGAAG 840  
Db 860 GAGGAAAGCAAGTATCTGAGTCAAGCATTCAGTTTGAAGTCAATTTGAAG 919  
QY 841 GCAGTTCACTTACTAGCAATGATGCAATAAAAACACTCTGCTGTAGAAATTTGACATT 900  
Db 920 GCAGTTCACTTACTAGCAATGATGCAATAAAAACACTCTGCTGTAGAAATTTGACATT 979  
QY 901 TCAATACAGACTTTCTCTATGAGCTGAGATGCTTACGCTGATCTGCTTAACAGT 960  
Db 980 TCAATACAGACTTTCTCTATGAGCTGAGATGCTTACGCTGATCTGCTTAACAGT 1039  
QY 961 GATTCTGAGTACAAAGCTTACTCCAAAGACTCTGAGTGAAGTAAAGAGAGCACTGC 1020  
Db 1040 GATTCTGAGTACAAAGCTTACTCCAAAGACTCTGAGTGAAGTAAAGAGAGCACTGC 1099  
QY 1021 GTCTTTTGAATTAAGGAGCAGACAGAAAGAGAGTACCTTACCCAGCATATA 1080  
Db 1100 GTCTTTTGAATTAAGGAGCAGACAGAAAGAGAGTACCTTACCCAGCATATA 1159  
QY 1081 CCGCGGAGTGTCTCTCAGTTCATTTTACTGCTGCTTGAATTCGAGCATTCCT 1140  
Db 1160 CCGCGGAGTGTCTCTCAGTTCATTTTACTGCTGCTTGAATTCGAGCATTCCT 1219  
QY 1141 AAAAGGCAATTTTGGGAGCCCTTGTGAGCTATACAGTGAAGTCTGAAAAGGCGCAG 1200  
Db 1220 AAAAGGCAATTTTGGGAGCCCTTGTGAGCTATACAGTGAAGTCTGAAAAGGCGCAG 1279  
QY 1201 CTACAGAGCTGTGCAATTAACAGAGGCGCAGATTAAGCCGCTTTGTACGAGATGCC 1260  
Db 1280 CTACAGAGCTGTGCAATTAACAGAGGCGCAGATTAAGCCGCTTTGTACGAGATGCC 1339  
QY 1261 TGGGCTGCTTGTGATCTCCGCTGCTTCCCTTCTGCGACACCACTCAAGTCTC 1320  
Db 1340 TGGGCTGCTTGTGATCTCCGCTGCTTCCCTTCTGCGACACCACTCAAGTCTC 1399  
QY 1321 CTGCTCGAATCTTCTTAACCTTCAACCCAGACATATTCTGTGCAAGCTCAAGTTTA 1380  
Db 1400 CTGCTCGAATCTTCTTAACCTTCAACCCAGACATATTCTGTGCAAGCTCAAGTTTA 1459  
QY 1381 TTTCAACCCAGGAAGCTCATTCTTCAACATTTGGAATTTCTGTACTACCCACA 1440  
Db 1460 TTTCAACCCAGGAAGCTCATTCTTCAACATTTGGAATTTCTGTACTACCCACA 1519  
QY 1441 ACAGAGTTCTGCGGAAGGAGATGATGACAGCTGGCTGCTTGTGTTGCTTCACTT 1500  
Db 1520 ACAGAGTTCTGCGGAAGGAGATGATGACAGCTGGCTGCTTGTGTTGCTTCACTT 1579  
QY 1501 CTTCAGCCAAACATTCATGATCCCATGAAGACAGCGGAAAGCCCTGGCTCTTAAGATA 1560  
Db 1580 CTTCAGCCAAACATTCATGATCCCATGAAGACAGCGGAAAGCCCTGGCTCTTAAGATA 1639  
QY 1561 TCCATCTCTCTGCAACAACAATTTCTTCACTTACAGATGACCCCTCAATCCCATC 1620  
Db 1640 TCCATCTCTCTGCAACAACAATTTCTTCACTTACAGATGACCCCTCAATCCCATC 1699  
QY 1621 AATAAGTGGGTCCAGGAACCGGATTAAGCCCGTTTATTGGGTTCTTCAACATTAAGAG 1680  
Db 1700 AATAAGTGGGTCCAGGAACCGGATTAAGCCCGTTTATTGGGTTCTTCAACATTAAGAG 1759

QY	1681	AAACTCCAAGAAACAACCCAGATGAGAAATTTTGAGCAATGTGGTCTTTTGGCTGC	1740
Db	1760	AAACTCCAAGAAACAACCCAGATGAGAAATTTTGAGCAATGTGGTCTTTTGGCTGC	1819
QY	1741	AGGCATTAAGGTATAGGATTAATCTATTGAGAAAGGCTCAGACATTTTCCTTAACATGGG	1800
Db	1820	AGGCATTAAGGTATAGGATTAATCTATTGAGAAAGGCTCAGACATTTTCCTTAACATGGG	1879
QY	1801	ATCTTAACTCATCTAAAGGTTTCCCTTCCAGAGATGCTCCTGTGTGGGAGAGAGAACCC	1860
Db	1880	ATCTTAACTCATCTAAAGGTTTCCCTTCCAGAGATGCTCCTGTGTGGGAGAGAGAACCC	1939
QY	1861	CCAGCAAAAGTATGTACAGACACATCCAGCTTCATGGCCAGCAGTCCGACAAATCTC	1920
Db	1940	CCAGCAAAAGTATGTACAGACACATCCAGCTTCATGGCCAGCAGTCCGACAAATCTC	1999
QY	1921	CTCCAGGAGAAAGGCCCATTTATGTGTGTGGACATGCAAGAATATATGGCCAAAGATCTA	1980
Db	2000	CTCCAGGAGAAAGGCCCATTTATGTGTGTGGACATGCAAGAATATATGGCCAAAGATCTA	2059
QY	1981	CATGATGCCCTTGTGCAAAATTAATAGCAAAAGAGTTGAGTTGAAAACTAGAGCAATG	2040
Db	2060	CATGATGCCCTTGTGCAAAATTAATAGCAAAAGAGTTGAGTTGAAAACTAGAGCAATG	2119
QY	2041	AAAACCTGTGGCACTTTTAAAGAAAGAAAACGCTACTTCACAGATATTTGGTCAATA	2097
Db	2120	AAAACCTGTGGCACTTTTAAAGAAAGAAAACGCTACTTCACAGATATTTGGTCAATA	2176

OY	241	CTGCCGGTGAATTTCTTTGCTTCACCTGCGGATAGGGTACTTGGGTCTCGGTGATTCAGAA	300
Db	241	CTGCCGGTGAATTTCTTTGCTTCACCTGCGGATAGGGTACTTGGGTCTCGGTGATTCAGAA	300
OY	301	TACACCTTCTTTGCAATGGGGGGGAGATTAATGATTAACGACCTTCAGAGCTTGGAGCC	360
Db	301	TACACCTTCTTTGCAATGGGGGGGAGATTAATGATTAACGACCTTCAGAGCTTGGAGCC	360
OY	361	CGGCAATTTCTATGACACTGAGCATGCAATGACTCTGTAGGTTTGAAGACTTGGTTAG	420
Db	361	CGGCAATTTCTATGACACTGAGCATGCAATGACTCTGTAGGTTTGAAGACTTGGTTAG	420
OY	421	CGGTGATTTGCTGCACTCTGGCCAGCCCTCAGAAAGACTTTTAAAGTCAAGCAGAGACAA	480
Db	421	CGGTGATTTGCTGCACTCTGGCCAGCCCTCAGAAAGACTTTTAAAGTCAAGCAGAGACAA	480
OY	481	GAGGAGATTAATGTCGGCGCACTCCGGTGGCATTCACCTGCATCTCTTGAGGACAGACCTTGTG	540
Db	481	GAGGAGATTAATGTCGGCGCACTCCGGTGGCATTCACCTGCATCTCTTGAGGACAGACCTTGTG	540
OY	541	AAGTCAGAGCTGTACACATTTGAATCTCAAGTCGAGCTTCTGAGATTTGATGATTCACAGA	600
Db	541	AAGTCAGAGCTGTACACATTTGAATCTCAAGTCGAGCTTCTGAGATTTGATGATTCACAGA	600
OY	601	AGAAAGACTTCTGAGCTTTTGAAGCAAAATGCAGTGAACAGCAACCAATCCAAATTTGTA	660
Db	601	AGAAAGACTTCTGAGCTTTTGAAGCAAAATGCAGTGAACAGCAACCAATCCAAATTTGTA	660

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1 RESULT 4
2 US-09-371-347-43
3
4 : Sequence 43, Application US/09371347
5 : Publication No. US20030082676A1
6 :
7 : GENERAL INFORMATION:
8 :
9 : APPLICANT: Roy A. Gravel et al.
10 :
11 : TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:
12 :
13 : TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE
14 :
15 : TITLE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER
16 :
17 : FILE REFERENCE: 50004/003003
18 :
19 : CURRENT APPLICATION NUMBER: US/09/371,347
20 :
21 : CURRENT FILING DATE: 1999-08-10
22 :
23 : PRIOR APPLICATION NUMBER: 60/071,622
24 :
25 : PRIOR FILING DATE: 1998-01-16
26 :
27 : PRIOR APPLICATION NUMBER: 09/232,028
28 :
29 : PRIOR FILING DATE: 1999-01-15
30 :
31 : NUMBER OF SEQ ID NOS: 51
32 :
33 : SOFTWARE: FastSeq for Windows Version 4.0
34 :
35 : SEQ ID NO 43
36 :
37 : LENGTH: 2097
38 :
39 : TYPE: DNA
40 :
41 : ORGANISM: Homo sapiens
42 :
43 : US-09-371-347-43

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Db	661	ATTGACAGCTTTGAGTCTCTCACATTACCGCTTCGATCCCGCCACTTCCACAAAGCTCTCTG	720
Oy	721	AATATTCCTGCTTTACCCCGAGAAATATTACAGGTACATCTGCAGAGATCTCTGGCCAG	780
Db	721	AATATTCCTGCTTTACCCCGAGAAATATTACAGGTACATCTGCAGAGATCTCTGGCCAG	780
Oy	781	GAGGAAACCCAAAGATCTGTGACTGCACAGATCCAGTTTTTCAGATGCCCAATTTCAAG	840
Db	781	GAGGAAACCCAAAGATCTGTGACTGCACAGATCCAGTTTTTCAGATGCCCAATTTCAAG	840
Oy	841	GCAGTTCACTTACTACGAATGATGCCATTAATAAACCACTCTGCTGGTGAATTTGACATT	900
Db	841	GCAGTTCACTTACTACGAATGATGCCATTAATAAACCACTCTGCTGGTGAATTTGACATT	900
Oy	901	TCAATACAGACTTTTCCATACGCTGAGCAGATGCTCAGCGGATCTGCGCTTAACAGT	960
Db	901	TCAATACAGACTTTTCCATACGCTGAGCAGATGCTCAGCGGATCTGCGCTTAACAGT	960
Oy	961	GATTCCTGAGGTACAAAGCTACTCTCAAGAGCTGCAGCTTGAAGATTAAGAAGAGACGACTGC	1020
Db	961	GATTCCTGAGGTACAAAGCTACTCTCAAGAGCTGCAGCTTGAAGATTAAGAAGAGACGACTGC	1020

Query Match	99.8%	Score 2093.8	DB 12	Length 2097
Best Local Similarly	99.9%	Pred. No. 0		
Matches 2095: Conservative	0	Mismatches	2	Indels 0
				Gaps 0

Db 1021 GTCTTTTGAATAAGGCAGACCAAAAGAAGAGACTACTTTACCCACAGCATATA 1080

QY	1	ATGAGGAGGTTTCGTACTATATGCTACACAGCAGGACGCAAGGCCATCGCAGAA	60
		1 ATGAGGAGGTTTCGTACTATATGCTACACAGCAGGACGCAAGGCCATCGCAGAA	60
QY	61	GAATATGTGAGCAGAAGCTGTGTCATGATGGATTTCTCGAGATCTTCACTGATTAGTAA	120
		61 GAATATGTGAGCAGAAGCTGTGTCATGATGGATTTCTCGAGATCTTCACTAATTAGTAA	120
QY	121	TCCGATTAAGTATGACCTTAAAAACCGAACAAGCTCCTCTTGTGTTGTGTTCTACCAACG	180
		121 TCCGATTAAGTATGACCTTAAAAACCGAACAAGCTCCTCTTGTGTTGTGTTCTACCAACG	180
QY	181	GGCACCAGGAGCCACCCGACACAGCCCGCAAGTTGTTAAAGAAATACAGAACCAACAA	240
		181 GGCACCAGGAGCCACCCGACACAGCCCGCAAGTTGTTAAAGAAATACAGAACCAACAA	240

[illegible]

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OY 1321 CTGCTCGAACAATCTTCTAACTCAACCCAGACCATATTCGTGCAAGTCAAGTTA 1380
    |||||||
Db 1321 CTGCTCGAACAATCTTCTAACTCAACCCAGACCATATTCGTGCAAGTCAAGTTA 1380
OY 1381 TTTCAACCCAGGAAGACTGATTTTGTCTTCAACATTTGGAGATTTTCTGTCTACGCCACA 1440
    |||||||
Db 1381 TTTCAACCCAGGAAGACTGATTTTGTCTTCAACATTTGGAGATTTTCTGTCTACGCCACA 1440
OY 1441 ACAGAGGTTCTGCGAAGGAGATGTGTACAGGCTGGGCGCTTGTGGTGGCTTCAAGT 1500
    |||||||
Db 1441 ACAGAGGTTCTGCGAAGGAGATGTGTACAGGCTGGGCGCTTGTGGTGGCTTCAAGT 1500
OY 1501 CTTCAGCCAAACATATCATGATCCCATGAAGACAGCGGAAAGCCCTGGCTCTTAAGATA 1560
    |||||||
Db 1501 CTTCAGCCAAACATATCATGATCCCATGAAGACAGCGGAAAGCCCTGGCTCTTAAGATA 1560
OY 1561 TCCATCTCTCTCGAACAACAATTTCTTCCACTTACAGATGAGACCCCTCAATCCCATTC 1620
    |||||||
Db 1561 TCCATCTCTCTCGAACAACAATTTCTTCCACTTACAGATGAGACCCCTCAATCCCATTC 1620
OY 1621 ATATGTGTGGTCTCGAAGACCGGATAGCCCGCTTATTTGGGTTCTTCAACATAGAGAG 1680
    |||||||
Db 1621 ATATGTGTGGTCTCGAAGACCGGATAGCCCGCTTATTTGGGTTCTTCAACATAGAGAG 1680
OY 1681 AAATCTCAAGAAACAACACCCAGATGGAATTTTGGAGCAATGTGTTTGTGGTGGTGC 1740
    |||||||
Db 1681 AAATCTCAAGAAACAACACCCAGATGGAATTTTGGAGCAATGTGTTTGTGGTGGTGC 1740
OY 1741 AGGCTAAGAGATAGGATTTATCTATTCAGAAAAGCTCAGACATTTCTTAAAGCATGGG 1800
    |||||||
Db 1741 AGGCTAAGAGATAGGATTTATCTATTCAGAAAAGCTCAGACATTTCTTAAAGCATGGG 1800
OY 1801 ATCTTAATCTATCTTAAAGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAACCC 1860
    |||||||
Db 1801 ATCTTAATCTATCTTAAAGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAACCC 1860
OY 1861 CCAGCAAAAGTATGTACAAGACACATCCAGCTTCAATGSCCAGAGGTGGCGAATCTCTC 1920
    |||||||
Db 1861 CCAGCAAAAGTATGTACAAGACACATCCAGCTTCAATGSCCAGAGGTGGCGAATCTCTC 1920
OY 1921 CTCCAGAGAAAGGCGCATTTATGTGTGAGATGTGAAGAAATATGGCCCAAGATGTA 1980
    |||||||
Db 1921 CTCCAGAGAAAGGCGCATTTATGTGTGAGATGTGAAGAAATATGGCCCAAGATGTA 1980
OY 1981 CATGATGCCCTTGTGCAATATATTAAGCAAGAGGTGGAATGAAGAACTGAAGCATG 2040
    |||||||
Db 1981 CATGATGCCCTTGTGCAATATATTAAGCAAGAGGTGGAATGAAGAACTGAAGCATG 2040
OY 2041 AAAACCCCTGGCCACTTTAAAGAAAGAAACGCTACCTTCAGATATTTGGTCATAA 2097
    |||||||
Db 2041 AAAACCCCTGGCCACTTTAAAGAAAGAAACGCTACCTTCAGATATTTGGTCATAA 2097

```

## RESULT 5

```

: Sequence 45, Application US/09371347
: Publication No. US20030082676a1

```

```

: GENERAL INFORMATION:
: APPLICANT: Roy A. Gravel et al.

```

```

: TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:
: TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE
: FILE REFERENCE: 50004/003003
: CURRENT APPLICATION NUMBER: US/09/371,347
: CURRENT FILING DATE: 1999-08-10

```

```

: PRIOR APPLICATION NUMBER: 60/071,622
: PRIOR FILING DATE: 1998-01-16
: PRIOR APPLICATION NUMBER: 09/232,028
: PRIOR FILING DATE: 1999-01-15

```

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: NUMBER OF SEQ ID NOS: 51
: SOFTWARE: FastSeq for Windows Version 4.0
: SEQ ID NO 45
: LENGTH: 2094

```

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: TYPE: DNA
: ORGANISM: Homo sapiens
: US-09-371-347-45

Query Match      99.2%; Score 2079.4; DB 12; Length 2094;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 2093; Conservative 0; Mismatches 1; Indels 3; Gaps 1.

OY 1 ATGAGAGAGTTTCTTCTATATCTTACATGCTACACAGCAGGAGAGGCAAGCCATCGCAGAA 60
    |||||||
Db 1 ATGAGAGAGTTTCTTCTATATCTTACATGCTTACATGCTTACAGCAGGAGAGGCAAGCCATCGCAGAA 60
OY 61 GAAATATGTGAGCAAGCTGTGTACATGATTTTGTGAGATCTTCACTGATATTTAGTAA 120
    |||||||
Db 61 GAAATATGTGAGCAAGCTGTGTACATGATTTTGTGAGATCTTCACTGATATTTAGTAA 120
OY 121 TCCGATTAAGTATGACCTTAAACCCGAAACAGCTCTTGTGTTGTGTTTCAACACG 180
    |||||||
Db 121 TCCGATTAAGTATGACCTTAAACCCGAAACAGCTCTTGTGTTGTGTTTCAACACG 180
OY 181 GGCACCGGAGACCCACCCGACACACAGCCGCAAGTTTGTAAAGAAATACAGACCAACA 240
    |||||||
Db 181 GGCACCGGAGACCCACCCGACACACAGCCGCAAGTTTGTAAAGAAATACAGACCAACA 240
OY 241 CTGCCGGTGTGATTTCTTGTCTACCTGCGGTATGGGTACTGGGCTCGGTGATTACAGA 300
    |||||||
Db 241 CTGCCGGTGTGATTTCTTGTCTACCTGCGGTATGGGTACTGGGCTCGGTGATTACAGA 300
OY 301 TACACCTTACTTTTGCATATGGGGGGAAGATTAATGATAACGACTTCAAGACCTTGAGACC 360
    |||||||
Db 301 TACACCTTACTTTTGCATATGGGGGGAAGATTAATGATAACGACTTCAAGACCTTGAGACC 360
OY 361 CGGCAATTTCTATGACACTGACATGACATGACATGACATGACATGACATGACATGACATG 420
    |||||||
Db 361 CGGCAATTTCTATGACACTGACATGACATGACATGACATGACATGACATGACATGACATG 420
OY 421 CCGTGATTTGTGACCTGTGACCTGACCTGACCTGACCTGACCTGACCTGACCTGACCTG 480
    |||||||
Db 421 CCGTGATTTGTGACCTGTGACCTGACCTGACCTGACCTGACCTGACCTGACCTGACCTG 480
OY 481 GAGGAGATTAAGTGGGCGACCTCCGCGTGGCATACCTGATCCTTGAGAGACAGACTTGTG 540
    |||||||
Db 481 GAGGAGATTAAGTGGGCGACCTCCGCGTGGCATACCTGATCCTTGAGAGACAGACTTGTG 540
OY 541 AAGTCAGAGCTGTACACATTTGAATCTCAAGTCAAGCTTGTGAGATTTGATGATGAGGA 600
    |||||||
Db 541 AAGTCAGAGCTGTACACATTTGAATCTCAAGTCAAGCTTGTGAGATTTGATGATGAGGA 600
OY 601 AGAAAGATTTGTAGGTTTGAAGCAAAATGACAGTGAACAGCAACCAATCCATGTGTA 660
    |||||||
Db 601 AGAAAGATTTGTAGGTTTGAAGCAAAATGACAGTGAACAGCAACCAATCCATGTGTA 660
OY 661 ATTGAAGACTTTGAGTCTCTACCTTACCCGTTGGTACCCCACTGACAAAGCTTCTGTG 720
    |||||||
Db 661 ATTGAAGACTTTGAGTCTCTACCTTACCCGTTGGTACCCCACTGACAAAGCTTCTGTG 720
OY 721 AATATTCCTGTTTACCCCGAGATTTTACAGTATGATGATGATGATGATGATGATGATG 780
    |||||||
Db 721 AATATTCCTGTTTACCCCGAGATTTTACAGTATGATGATGATGATGATGATGATGATG 780
OY 781 GAGGAAGCCCAAGTATCTGTGACTTCAAGAGATCCAGATTTTCAAGTGCCAAATTTCAAG 840
    |||||||
Db 781 GAGGAAGCCCAAGTATCTGTGACTTCAAGAGATCCAGATTTTCAAGTGCCAAATTTCAAG 840
OY 841 GCAAGTCAACTTACTAGGAATGATGATGATGATGATGATGATGATGATGATGATGATG 900
    |||||||
Db 841 GCAAGTCAACTTACTAGGAATGATGATGATGATGATGATGATGATGATGATGATGATG 900
OY 901 TCAATATCAGACTTTTCTATACAGCTGAGATGATGATGATGATGATGATGATGATGATG 960
    |||||||
Db 901 TCAATATCAGACTTTTCTATACAGCTGAGATGATGATGATGATGATGATGATGATGATG 960
OY 961 GATTCTGAGTACAAAGCTTACTCAAAAGACTGAGCTTGAAGATTAAGAGAGACTGCG 1020
    |||||||

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|||||  
Db GATCTGAGTACAAAGCCTACTCCAAAGACTGCAGCTTGAGATTAAGAGAGCAGCTGC 1020  
OY 1021 GTCCCTTTGAAAATTAAGGACACACAAAGAAAGAGAGCTACTTACCAGCATATA 1080  
Db 1021 GTCCCTTTGAAAATTAAGGACACACAAAGAAAGAGAGCTACTTACCAGCATATA 1080  
OY 1081 CCTGGGAGATGTTCTCTCAGTTCAATTTTACCTGGTGTCTTGAATCCGAGCATTTCT 1140  
Db 1081 CCTGGGAGATGTTCTCTCAGTTCAATTTTACCTGGTGTCTTGAATCCGAGCATTTCT 1140  
OY 1141 AAAAAGCATTTTTCGAGCCCTTGTGAGACTATACAGTGAGACAGTGTGAAAAAGCGCAGG 1200  
Db 1141 AAAAAGCATTTTTCGAGCCCTTGTGAGACTATACAGTGAGACAGTGTGAAAAAGCGCAGG 1200  
OY 1201 CTACAGAGCTGTGAGTAACAAAGGGCAGCCGATTAATAGCCGTTTGTACAGATATGC 1260  
Db 1201 CTACAGAGCTGTGAGTAACAAAGGGCAGCCGATTAATAGCCGTTTGTACAGATATGC 1260  
OY 1261 TGTGCTGCTGTTGTGATCTCTCTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCC 1320  
Db 1261 TGTGCTGCTGTTGTGATCTCTCTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCC 1320  
OY 1321 CTGCTGCAACATCTTCTTAACCTTCAACCCAGACCATATTCGTGTGCAAGCTCAAGTTTA 1380  
Db 1321 CTGCTGCAACATCTTCTTAACCTTCAACCCAGACCATATTCGTGTGCAAGCTCAAGTTTA 1380  
OY 1381 TTTTCAACCCAGAAACCTCCATTTTGTCTTCAACATTTGTGGAATTTCTGTCTACTGCCACA 1440  
Db 1381 TTTTCAACCCAGAAACCTCCATTTTGTCTTCAACATTTGTGGAATTTCTGTCTACTGCCACA 1440  
OY 1441 ACAGAGTTCTGCGAAGGAGATGTATGATACAGGCTGGTGGCTTGTGTGTTCTCTCAGTT 1500  
Db 1441 ACAGAGTTCTGCGAAGGAGATGTATGATACAGGCTGGTGGCTTGTGTGTTCTCTCAGTT 1500  
OY 1501 CTTGAGCCAAACATACATGATCCCATGAAGACAGCGGGAAGCCCTGGCTCTTAAGATA 1560  
Db 1501 CTTGAGCCAAACATACATGATCCCATGAAGACAGCGGGAAGCCCTGGCTCTTAAGATA 1560  
OY 1561 TCCATCTCTCTCGAACAACAATTTCTTCCATTCACAGATGACCCCTCATTCGCCATC 1620  
Db 1561 TCCATCTCTCTCGAACAACAATTTCTTCCATTCACAGATGACCCCTCATTCGCCATC 1620  
OY 1621 ATATGTTGGTGTCCAGAACCGGATAGCCCGTTTATTTGGTCTCTACACATAGAGAG 1680  
Db 1621 ATATGTTGGTGTCCAGAACCGGATAGCCCGTTTATTTGGTCTCTACACATAGAGAG 1680  
OY 1681 AAACCTCAAGAACACACCCAGATGGAATTTTGAAGCAATGTG--GTTTGTGGCTGC 1740  
Db 1681 AAACCTCAAGAACACACCCAGATGGAATTTTGAAGCAATGTG--GTTTGTGGCTGC 1740  
OY 1741 AGGCAATAGGATAGGATTTATCTTTCAGAAAAGCCTCAGACATTTCCCTTAAGATGGG 1800  
Db 1741 AGGCAATAGGATAGGATTTATCTTTCAGAAAAGCCTCAGACATTTCCCTTAAGATGGG 1800  
OY 1801 ATCTTAAGTATTAAGGTTTCTTCTTCAAGAGATGCTCTGTTGGGAGAGAGAGAGCC 1860  
Db 1801 ATCTTAAGTATTAAGGTTTCTTCTTCAAGAGATGCTCTGTTGGGAGAGAGAGAGCC 1860  
OY 1861 CCAGCAAAAGTATGTAACAGACAAATCCAGCTTCATGCGCAGCAGAGTGGCGAATCTCTC 1920  
Db 1861 CCAGCAAAAGTATGTAACAGACAAATCCAGCTTCATGCGCAGCAGAGTGGCGAATCTCTC 1920  
OY 1921 CTCCAGGAGAAAGGCGCATTTATGTGTGAGATGCAAAATATGGCCCAAGATGTA 1980  
Db 1921 CTCCAGGAGAAAGGCGCATTTATGTGTGAGATGCAAAATATGGCCCAAGATGTA 1980  
OY 1981 CATGATGCCCTTGTGCAATATTAAGCAAGAGTGTGAGTTGAAAAAATTAAGCAATG 2040  
Db 1981 CATGATGCCCTTGTGCAATATTAAGCAAGAGTGTGAGTTGAAAAAATTAAGCAATG 2040  
OY 2041 AAAACCTGCGCATTTAAGAGAAAAAGCTTACAGATATTTGTGATATA 2097  
Db 2041 AAAACCTGCGCATTTAAGAGAAAAAGCTTACAGATATTTGTGATATA 2097

Db 2038 AAAACCTGCGCATTTAAGAGAAAAAGCTTACAGATATTTGTGATATA 2094  
RESULT 6  
US-09-371-347-47  
; Sequence 47, Application US/09371347  
; Publication No. US20030082676A1  
; GENERAL INFORMATION:  
; APPLICANT: Roy A. Gravel et al.  
; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE;  
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
; FILE REFERENCE: 50004/003003  
; CURRENT APPLICATION NUMBER: US/09/371,347  
; PRIOR FILING DATE: 1999-08-10  
; PRIOR APPLICATION NUMBER: 50/071,622  
; PRIOR FILING DATE: 1998-01-16  
; PRIOR APPLICATION NUMBER: 09/232,028  
; NUMBER OF SEQ ID NOS: 51  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO: 47  
; LENGTH: 2093  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-371-347-47  
Query Match 99.1%; Score 2077.4; DB 12; Length 2093;  
Best Local Similarity 99.8%; Pred. No. 0;  
Matches 2092; Conservative 0; Mismatches 1; Indels 4; Gaps 1;  
OY 1 ATGAGAGAGTTCTGTACTATATGCTACACAGAGGAGGAGCAAGAGCCATGCGACGA 60  
Db 1 ATGAGAGAGTTCTGTACTATATGCTACACAGAGGAGGAGCAAGAGCCATGCGACGA 60  
OY 61 GAAATATGTGACCAAGCTGTGTACATGATTTTCTGAGATCTTCACTGTATATAGTGA 120  
Db 61 GAAATGTGTGACCAAGCTGTGTACATGATTTTCTGAGATCTTCACTGTATATAGTGA 120  
OY 121 TCCGATTAAGTATGACCTTAACAAACCCAGACGCTCTCTTGTGTGTGTTCTTACACG 180  
Db 121 TCCGATTAAGTATGACCTTAACAAACCCAGACGCTCTCTTGTGTGTGTTCTTACACG 180  
OY 181 GGCACCGGAGACCCACCCGACACAGCCGCAAGTTTGTGAAGAAATACAGAACCAACA 240  
Db 181 GGCACCGGAGACCCACCCGACACAGCCGCAAGTTTGTGAAGAAATACAGAACCAACA 240  
OY 241 CTGCGGTTGATTTCTTGTCTACCTGCGATAGGTTACTGGGTCTCGTATTCAGAA 300  
Db 241 CTGCGGTTGATTTCTTGTCTACCTGCGATAGGTTACTGGGTCTCGTATTCAGAA 300  
OY 301 TACACCTACTTTTGCATATGGGGGAAAGATTAATGATTAACGACTTCAAGAGCTTGGAGC 360  
Db 301 TACACCTACTTTTGCATATGGGGGAAAGATTAATGATTAACGACTTCAAGAGCTTGGAGC 360  
OY 361 CGGCAATTTCTATGACACTGACATGCAATGCACTGTGTGATTTGAATCTTGTGGTGA 420  
Db 361 CGGCAATTTCTATGACACTGACATGCAATGCACTGTGTGATTTGAATCTTGTGGTGA 420  
OY 421 CCGTGGATTTCTGAGACTGTGCGCAGCCCTCAGAAAAGCATTTTAAAGTCAAGAGAGACA 480  
Db 421 CCGTGGATTTCTGAGACTGTGCGCAGCCCTCAGAAAAGCATTTTAAAGTCAAGAGAGACA 480  
OY 481 GAGGAGATTAAGTGGGCGCATCTCCCGGTGATACCTGCTCTTGAAGACACAGCTTGG 540  
Db 481 GAGGAGATTAAGTGGGCGCATCTCCCGGTGATACCTGCTCTTGAAGACACAGCTTGG 540  
OY 541 AAGTCAGAGCTCTACATTAATCTCAAGTGAAGTCAAGTCTGAGATTCGATATTCAGGA 600  
Db 541 AAGTCAGAGCTCTACATTAATCTCAAGTGAAGTCAAGTCTGAGATTCGATATTCAGGA 600  
OY 601 AGAAGATTTGTAGGTTTGAAGCAAAATGCAAGTGAACAGCAACCAATCCAATGTTGTA 660  
Db 601 AGAAGATTTGTAGGTTTGAAGCAAAATGCAAGTGAACAGCAACCAATCCAATGTTGTA 660

```

Db      601 AGAAGATTCGTGAGGTTTGAAGCAAAATGCAATGCAAGCAACCAATCAATGTGTGA 660
Oy      661 ATTGAAGACTTTGAGTCTCTCACTTACCCGTTGGTATACCCCACTCTCACAGCCTCTCG 720
        |||||
Db      661 ATTGAAGACTTTGAGTCTCTCACTTACCCGTTGGTATACCCCACTCTCACAGCCTCTCG 720
Oy      721 AATATTCTGTTTACCCCAAGATATTTACAGTATCTGACAGAGTCTCTGCGCAG 780
        |||||
Db      721 AATATTCTGTTTACCCCAAGATATTTACAGTATCTGACAGAGTCTCTGCGCAG 780
Oy      781 GAGGAAAGCAGTATCTGAGTCTGACAGATCCAGTTTTCAGAGTCCCAATTTCAAG 840
        |||||
Db      781 GAGGAAAGCAGTATCTGAGTCTGAGTCTGAGATCCAGTTTTCAGAGTCCCAATTTCAAG 840
Oy      841 GCAGTTCACCTTACTACGATATGATGCAATAAACACACTCTGCTGTGATTTGACAT 900
        |||||
Db      841 GCAGTTCACCTTACTACGATATGATGCAATAAACACACTCTGCTGTGATTTGACAT 900
Oy      901 TCAATACAGACTTTTCTATCAGCCTGAGATGCTTACAGCCTGATCTGCCCTAACGT 960
        |||||
Db      901 TCAATACAGACTTTTCTATCAGCCTGAGATGCTTACAGCCTGATCTGCCCTAACGT 960
Oy      961 GATTCGAGTCAAGGCTTCTCAAGAGTCTGACAGTCTGAGATTAAGAGAGAGAGAGAG 1020
        |||||
Db      961 GATTCGAGTCAAGGCTTCTCAAGAGTCTGACAGTCTGAGATTAAGAGAGAGAGAGAG 1020
Oy      1021 GTCTTTTGAATTAAGGAGACACAAAGAGAGAGAGTACCTTACCCAGCATATA 1080
        |||||
Db      1021 GTCTTTTGAATTAAGGAGACACAAAGAGAGAGAGTACCTTACCCAGCATATA 1080
Oy      1081 CCTGGGAGTGTCTCTCAGTTCATTTTACCTGTGTCTTGAATCCGAGCAATTCCT 1140
        |||||
Db      1081 CCTGGGAGTGTCTCTCAGTTCATTTTACCTGTGTCTTGAATCCGAGCAATTCCT 1140
Oy      1141 AAAAGGATTTTTCGAGACCTTGTGAGTATACAGTACAGTGAAGAGAGAGAGAG 1200
        |||||
Db      1141 AAAAGGATTTTTCGAGACCTTGTGAGTATACAGTACAGTGAAGAGAGAGAGAG 1200
Oy      1201 CTACAGAGTGTGTGAGTAAACAGAGGAGGAGGAGTATAGCCGTTTGTACGAGATGCC 1260
        |||||
Db      1201 CTACAGAGTGTGTGAGTAAACAGAGGAGGAGGAGTATAGCCGTTTGTACGAGATGCC 1260
Oy      1261 TGTGCTGCTGTGTGAGTCTCTCTGCTGCTTCCCTTCTTGGCAGCCACACTCAGTCTC 1320
        |||||
Db      1261 TGTGCTGCTGTGTGAGTCTCTCTGCTGCTTCCCTTCTTGGCAGCCACACTCAGTCTC 1320
Oy      1321 CTGCTCGAATCTTCTTAACTTCAACCCAGAGACCATATGCTGTGCAAGCTCAAGTTA 1380
        |||||
Db      1321 CTGCTCGAATCTTCTTAACTTCAACCCAGAGACCATATGCTGTGCAAGCTCAAGTTA 1380
Oy      1381 TTTCAACCCAGAGAGCTCATTGTTGTCTTCAACATTTGGAATTTCTGTACTGCGACA 1440
        |||||
Db      1381 TTTCAACCCAGAGAGCTCATTGTTGTCTTCAACATTTGGAATTTCTGTACTGCGACA 1440
Oy      1441 ACAGAGTGTGCGGAGAGAGTATGTACAGGCTGTGCGCTTGTGCTTGTGCTTCACTT 1500
        |||||
Db      1441 ACAGAGTGTGCGGAGAGAGTATGTACAGGCTGTGCGCTTGTGCTTGTGCTTCACTT 1500
Oy      1501 CTTCAGGCAACATCATGATCCCATGAGAGACAGCGGAGAGAGAGAGAGAGAGAGAG 1560
        |||||
Db      1501 CTTCAGGCAACATCATGATCCCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1560
Oy      1561 TGCATCTCTCTCGAACAACAATTTCTTTCACATGAGATGAGACCTCATCCATCCATC 1620
        |||||
Db      1561 TGCATCTCTCTCGAACAACAATTTCTTTCACATGAGATGAGACCTCATCCATCCATC 1620
Oy      1621 ATATATGTTGTTCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1680
        |||||
Db      1621 ATATATGTTGTTCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1680
Oy      1681 AAATCTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1740
        |||||
Db      1681 AAATCTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1740
Oy      1677 AAATCTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1736

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Oy      1741 AGCATAAGAGATAGGATTTATCTATTCAGAAAAGAGAGTCAAGATTTCTTAAGCATGG 1800
        |||||
Db      1737 AGCATAAGAGATAGGATTTATCTATTCAGAAAAGAGAGTCAAGATTTCTTAAGCATGG 1796
        |||||
Oy      1801 ATCTTAATCATCTAAGGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAGAGAG 1860
        |||||
Db      1797 ATCTTAATCATCTAAGGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAGAGAG 1856
        |||||
Oy      1861 CCAGCAAGATATGTACAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1920
        |||||
Db      1857 CCAGCAAGATATGTACAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1916
        |||||
Oy      1921 CTCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980
        |||||
Db      1917 CTCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1976
        |||||
Oy      1981 CATGATGCCCTTGTCAATATATAGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040
        |||||
Db      1977 CATGATGCCCTTGTCAATATATAGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2036
        |||||
Oy      2041 AAACCTGCGCCTTTTAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2097
        |||||
Db      2037 AAACCTGCGCCTTTTAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2093
        |||||

```

## RESULT 7

```

US-09-909-567B-38
; Sequence 38, Application US/0909567B
; Publication No. US2003002257A1
; GENERAL INFORMATION:
; APPLICANT: Macina, Roberto A.
; APPLICANT: Nair, Manoj
; APPLICANT: Chen, Seiyu
; TITLE OF INVENTION: Compositions and Methods Relating to Lung Specific Genes
; FILE REFERENCE: DEX-0214
; CURRENT FILING DATE: 2001-07-20
; PRIOR APPLICATION NUMBER: 60/219,834
; PRIOR FILING DATE: 2000-07-21
; NUMBER OF SEQ ID NOS: 56
; SOFTWARE: Patencin version 3.1
; SEQ ID NO 38
; LENGTH: 2475
; TYPE: DNA
; ORGANISM: Homo sapien
; FEATURE:
; NAME/KEY: misc.feature
; LOCATION: (1001)..(1001)
; OTHER INFORMATION: a, c, g or t
; FEATURE:
; NAME/KEY: misc.feature
; LOCATION: (1011)..(1011)
; OTHER INFORMATION: a, c, g or t
US-09-909-567B-38

```

Query Match 8.3%; Score 174.4; DB 12; Length 2475;

Best Local Similarity 96.7%; Pred. No. 1.4e-44;

Matches 178; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

```

Oy      510 ATCACTGATCTCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 569
        |||||
Db      1 ATCACTGATCTCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 60
        |||||
Oy      570 AGTGAAGTCTGAGATTCGATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 629
        |||||
Db      61 AGTGAAGTCTGAGATTCGATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 120
        |||||
Oy      630 TGCAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 689
        |||||
Db      121 TGCAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 180
        |||||
Oy      690 TTCG 693

```





QY 1888 CAGCTTCATGCGCAGAGTGGGAGAAATCCTCTCCAGAGAACGCCATATTATGTG 1947  
DB 1832 AAGAGAGACAGGAGAACCTGCTGGAAGCTATCCACAGGCGCGTCCACATCTATGTG 1891  
QY 1948 TGTGGAGATGCAAGAATATGATGCAAGATGTACA 1982  
DB 1892 TCGGGGAGTCTCGAATATATGCGCAAGAATGTGCA 1926

## RESULT 10

US-09-783-590-1364  
Sequence 1364, Application US/09783590  
Patent No. US20020110850A1  
GENERAL INFORMATION:  
APPLICANT: Dillon, Patrick J.  
APPLICANT: Haseltine, William A.  
APPLICANT: Li, Haodong  
APPLICANT: Rosen, Craig A.  
APPLICANT: Ruben, Steven M.  
TITLE OF INVENTION: Human Genes, Sequences, and Expression Products 16.2  
FILE REFERENCE: FO-16.201  
CURRENT APPLICATION NUMBER: US/09/783,590  
CURRENT FILING DATE: 2000-02-15  
PRIOR APPLICATION NUMBER: 08/420,856  
PRIOR FILING DATE: 1995-04-12  
PRIOR APPLICATION NUMBER: 08/346,731  
PRIOR FILING DATE: 1994-11-21  
NUMBER OF SEQ ID NOS: 12485  
SOFTWARE: Patentln Ver. 2.0  
SEQ ID NO 1364  
LENGTH: 101  
TYPE: DNA  
ORGANISM: Homo sapiens  
FEATURE:  
NAME/KEY: misc feature  
LOCATION: (2)  
OTHER INFORMATION: n equals a,t,g, or c  
NAME/KEY: misc feature  
LOCATION: (62)  
OTHER INFORMATION: n equals a,t,g, or c  
US-09-783-590-1364

Query Match  
Best Local Similarity 95.0%; Score 83.8; DB 11; Length 101;  
Matches 96; Conservative 0; Mismatches 4; Indels 1; Gaps 1;

QY 1673 ATAGAGAACTCCAGAACACACCCAGATGAATTTTGAGCAATGTGTTGTTT 1732  
DB 1 ANAGAGAGAACTCCAGAACACACCCAGATGAATTTTGAGCAATGTGTTGTTT 60  
QY 1733 TTGGCTGAGCATATAGATAGG-ATTATCTATTTCAGAAA 1772  
DB 61 TNGGCTGAGCATATAGATAGG-ATTATCTATTTCAGAAA 101

## RESULT 11

US-09-294-093B-4842  
Sequence 4842, Application US/09294093B  
Patent No. US20010051335A1  
GENERAL INFORMATION:  
APPLICANT: Lalugudi, Raghunath, V.  
APPLICANT: Ito, Laura, Y.  
APPLICANT: Sherman, Bradley, K.  
TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN TASSEL  
FILE REFERENCE: PL-0009 US  
CURRENT APPLICATION NUMBER: US/09/294,093B  
CURRENT FILING DATE: 1999-04-16  
PRIOR APPLICATION NUMBER: 60/082,567  
PRIOR FILING DATE: April 21, 1998  
NUMBER OF SEQ ID NOS: 6207  
SOFTWARE: PERL Program  
SEQ ID NO 4842

LENGTH: 298  
TYPE: DNA  
ORGANISM: Zee mays  
FEATURE:  
NAME/KEY: misc feature  
OTHER INFORMATION: Incycle ID No. US20010051335A1 700355168H1  
US-09-294-093B-4842

Query Match  
Best Local Similarity 58.0%; Score 61; DB 10; Length 298;  
Matches 148; Conservative 0; Mismatches 100; Indels 7; Gaps 2;

QY 1587 TTTCACCTTACGAGATGACCCCTCAATCCCATCATATATGTTGGTCCAGAACCGGCAT 1646  
DB 46 TTTCAGTTACCTGTCGACCCATCCATCCGATTCATATGATTTGTCCTGGGACAGC-T 104  
QY 1647 AGCCCGTTTATGTTGTTCTTACACATAGAGAAATCCCAAGAACCCAGATGG 1706  
DB 105 GGCCTCCTTTTAAAGGCTTTTCGAGGAAGGTTCAGCACTGAAACAAT-----CTGAGC 158  
QY 1707 AATTTTGGACATGTGTTGTTTGGCTGCGAGCATTAAGATAGGATTTATTT 1766  
DB 159 AGACTGGGACCTTCAATCTTTCTTTGGATGACAGAACCGTAATATGAGTACATATA 218  
QY 1767 CAGAAAAGCTCAGACATTTCTTACAGATGAGATCTTAACTCATCTAAAGTTCTT 1826  
DB 219 TGAAGATGAGCTCAAACTTCTCTTGAGAGGGGGGCTTTCTGACTTAATTTGTCATT 278  
QY 1827 CTCAGAGATGCTCC 1841  
DB 279 CTCCTGGGAAGGGCC 293

## RESULT 12

US-09-822-849A-278  
Sequence 278, Application US/09822849A  
Patent No. US20020045170A1  
GENERAL INFORMATION:  
APPLICANT: Wong, Gordon G.  
APPLICANT: Clark, Hilary  
APPLICANT: Fechtel, Kim  
APPLICANT: Agostino, Michael J.  
APPLICANT: Howes, Steven H.  
APPLICANT: Resnick, Richard J.  
APPLICANT: Gulukota, Kamalakara  
APPLICANT: Graham, James R.  
APPLICANT: Genetics Institute, Inc.  
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS  
FILE REFERENCE: GIN 6403  
CURRENT APPLICATION NUMBER: US/09/822,849A  
CURRENT FILING DATE: 2001-09-04  
PRIOR APPLICATION NUMBER: 60/195,582  
PRIOR FILING DATE: 2000-04-06  
NUMBER OF SEQ ID NOS: 598  
SOFTWARE: Patentln Ver. 2.0  
SEQ ID NO 278  
LENGTH: 2470  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-822-849A-278

Query Match  
Best Local Similarity 55.6%; Score 59.6; DB 10; Length 2470;  
Matches 138; Conservative 0; Mismatches 104; Indels 6; Gaps 1;

QY 1588 TTCCACTTACGAGATGACCCCTCAATCCCATCATATATGTTGGTCCAGAACCGGCATA 1647  
DB 1615 TTCCGCGCTTCAAGGCCACCCAGCGCTGTATCATATGATGGGCGCCGCGGCGGTG 1674  
QY 1648 GCGCCGTTTATGTTGTTCTTACACATAGAGAAATCCCAAGAACCCAGATGGA 1707  
DB 1675 GCACCTTTCATAGCTTCATCAGAGCGGGCTGGCTGGCAGCAGGCGAGAGG-- 1732



QY	1708	AAATTTGGAGCAATGTGGTTGTTTTTGGCGTGGAGCATTAAGSATTAGGAAATTATCAATTTC	1767
Db	1733	----TGGGGGAGAGAGCTGCTGTACTAGCGCGCGCGTCGATGAGAGCTTACTCTTAC	1788
OY	1768	AGAAAGAGCTCAGACATTTCTTAAGCATGGCATTTTACTCATCTAAAGCTTTCCTTC	1827
Db	1789	CGGAGAGAGCTGGCGCGAGTTCCACAGGAGCGTGCCTCACCCAGCTCAAGTGCGCTTC	1848
OY	1828	TCAAGAGA	1835
Db	1849	TCCCGGGA	1856

## RESULT 13

```

: US-09-923-876-2845
: Sequence 2845, Application US/09923876
: Patent No. US20020013958A1
: GENERAL INFORMATION:
: APPLICANT: Laligudi, Raghunath V.
: APPLICANT: Kamigaki, Laura Y. (Itc)
: APPLICANT: Sherman, Bradley K.
: TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN SEEDLINGS
: FILE REFERENCE: PL-0012-1 CON
: CURRENT APPLICATION NUMBER: US/09/923, 876
: CURRENT FILING DATE: 2001-08-06
: PRIOR APPLICATION NUMBER: 09/298,329
: PRIOR FILING DATE: 1999-04-21
: PRIOR APPLICATION NUMBER: 60/085,331
: PRIOR FILING DATE: 1998-05-05
: NUMBER OF SEQ ID NOS: 6332
: SOFTWARE: PERL Program
: SEQ ID NO 2845
: LENGTH: 230
: TYPE: DNA
: ORGANISM: Zea mays
: FEATURE:
: NAME/KEY: misc_feature
: OTHER INFORMATION: Incyte ID NO. US20020013958A1 700161271H1
: NAME/KEY: unsure
: LOCATION: 196
: OTHER INFORMATION: a, t, c, g, or other
: US-09-923-876-2845

```

Query Match	2.8%	Score 58.4	DB 10	Length 230
Best Local Similarity	56.2%	Pred. No. 6.3e-08		
Matches 132, Conservative	0	Mismatches 97	Indels 6	Gaps 1

OY	1584	TTTACAGATGACCCCTCAATCCCATCATTAATGAGGGCTCCAGAAACCGCATATACCCCG	165
Db	2	TTACTCTGTATCCGTCACCTCTCTATTTATCATGATTTGGTCTCTGGACAGGGCTGCCTCT	61
OY	1654	TTTATTGGGTCCTACACAATAGAGAGAAACTCCAAAGACAACCCAGATGGAATTTT	1713
Db	62	TTTATGAGGCTTCTTGACGAGAAAGGTTACCATTTGAACAAT-----CTGGGGACACAATTG	115
OY	1714	GGAGCAATGTGGTTGTTTTTTGGCTGCAGGCATTAAGCATPAGGATTTATCTATTCAGAAA	1773
Db	116	GGCACTTCAATCTTTTCTTTGGATGCGAGAAACGTAATATGACATATATATGAAAT	175
OY	1774	GAGCTCAGACATTTCCCTTAAGCATGAGATCTTAACCTCATTAAGGTTTCCCTCT	1828
Db	176	GAGTTGCAAACTTTCCTTGAGAGAGGGGGCGCTTCTTGAGCTTAATTTGGTGCATTTCT	230

RESULT 14

US-08-781-986A-120  
Sequence 120, Application US/08781986A  
Publication No. US2003005436A1  
GENERAL INFORMATION:  
APPLICANT: Charles Kunsch  
TITLE OF INVENTION: Staphylococcus aureus Polynucleotides and Sequences  
NUMBER OF SEQUENCES: 5255  
CORRESPONDENCE ADDRESS:

ADDRESSEE: Human Genome Sciences, Inc.  
STREET: 9410 Key West Avenue  
CITY: Rockville  
STATE: Maryland  
COUNTRY: USA  
ZIP: 20850  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette, 3.50 inch, 1.4mb storage  
COMPUTER: HP Vectra 486/33  
OPERATING SYSTEM: MSDOS version 6.2  
SOFTWARE: ASCII Text  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/781,986A  
FILING DATE:  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER:  
FILING DATE:  
ATTORNEY/AGENT INFORMATION:  
NAME: Benson, Bob  
REGISTRATION NUMBER: 30,446  
REFERENCE/DOCKET NUMBER: PB248PP  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (301) 309-8504  
TELEFAX: (301) 309-8512  
INFORMATION FOR SEQ ID NO: 120:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 13508 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
US-08-781-986A-120

Query Match	2.7%	Score	57.2	DB	8	Length	13508
Best Local Similarity	47.9%	Pred. No.	2.5e-06				
Matches	245	Conservative	1	Mismatches	244	Indels	22
						Gaps	2

[illegible]

## RESULT 15

US-09-938-842A-803  
: Sequence 803, Application US/09938842A  
: Patent No. US20020160378A1  
: GENERAL INFORMATION:  
: APPLICANT: Harper, Jeff  
: APPLICANT: Kreps, Joel  
: APPLICANT: Wang, Xun  
: APPLICANT: Zhu, Tong  
: TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING  
: FILE REFERENCE: SAME, AND METHODS OF USE  
: CURRENT APPLICATION NUMBER: US/09/938,842A  
: CURRENT FILING DATE: 2001-08-24  
: PRIOR APPLICATION NUMBER: US 60/227,866  
: PRIOR FILING DATE: 2000-08-24  
: PRIOR APPLICATION NUMBER: US 60/264,647  
: PRIOR FILING DATE: 2001-01-16  
: PRIOR APPLICATION NUMBER: US 60/300,111  
: PRIOR FILING DATE: 2001-06-22  
: NUMBER OF SEQ ID NOS: 5379  
: SEQ ID NO 803  
: LENGTH: 2136  
: TYPE: DNA  
: ORGANISM: Arabidopsis thaliana  
US-09-938-842A-803

## Query Match

2.7%: Score 56; DB 11; Length 2136;  
Best Local Similarity 54.3%; Pred. No. 1.7e-06;

Matches 138; Conservative 0; Mismatches 110; Indels 6; Gaps 1;

OY	1588	TTCCACTTACCATGACCCCTCAATCCCATCAATATGATGGGTCCAGAACCGCATTA	1647
DB	1657	TTCAAGCTTCTTCTGATTTCTAAGTACCGATCATGATCGTCCAGGACTGGATTA	1716
OY	1648	GCCCCGTTTATTTGGGTTCTTACAACTATAGAGAGAAACTCAAGAACACACCCAGATGA	1707
DB	1717	GCTCATTCAGAGGATTCCTTCAGGAAGACTAGCGTTGTAGAAAT-----CTGGTGT	1770
OY	1708	AATTTGAGCAATGTGTGTTTGTGCTGCAGGCATTAAGATAGGATTATCTATTC	1767
DB	1771	GAACCTGGGCGCATAGTTTGTCTTGTGGATGCAGAAACCGTAGAATGATTTCATCTAC	1830
OY	1768	AGAAAGAGCTACAGCATTTCTTAAGCATGGAGATCTTAACCTTAAGGTTTCTTC	1827
DB	1831	GAGGAGAGGCTCCAGCATTTGTGTAGAGTGTGCTCTCCAGAGCTAAGTGTGCTTC	1890
OY	1828	TCAGAGATGCTCC	1841
DB	1891	TCTCGTGAAGGACC	1904

Search completed: July 29, 2003, 23:03:16  
Job time : 427.084 secs

GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: July 29, 2003, 09:58:39 ; Search time 89.0595 Seconds  
(without alignments)  
7221.032 Million cell updates/sec

Title: US-09-371-347A-41

Perfect score: 2097  
Sequence: 1 atgaggaagttctgtact.....ttcagatatgtgtacataa 2097

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 441362 seqs, 153338381 residues

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued\_Patents\_NA:\*  
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2: /cgn2\_6/ptodata/1/lna/5B.COMB.seq:\*  
3: /cgn2\_6/ptodata/1/lna/6A.COMB.seq:\*  
4: /cgn2\_6/ptodata/1/lna/6B.COMB.seq:\*  
5: /cgn2\_6/ptodata/1/lna/6C.COMB.seq:\*  
6: /cgn2\_6/ptodata/1/lna/6D.COMB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2095.4	99.9	3259	4	US-09-318-448-23 Sequence 23, Appl
2	386.4	18.4	390	4	US-08-905-223-71 Sequence 71, Appl
3	63.6	3.0	4353	2	US-08-365-486A-18 Sequence 18, Appl
4	63.6	3.0	4353	4	US-08-880-342-18 Sequence 18, Appl
5	63.6	3.0	4780	2	US-08-365-486A-20 Sequence 20, Appl
6	63.6	3.0	4780	3	US-09-123-708-3 Sequence 3, Appl
7	63.6	3.0	4780	3	US-09-123-708-3 Sequence 3, Appl
8	63.6	3.0	4780	4	US-08-880-342-20 Sequence 20, Appl
9	57.2	2.7	5057	2	US-08-365-486A-12 Sequence 12, Appl
10	57.2	2.7	5057	4	US-08-880-342-12 Sequence 12, Appl
11	57.2	2.7	5108	1	US-07-642-002-1 Sequence 1, Appl
12	53.6	2.5	1863	4	US-09-627-216A-13 Sequence 13, Appl
13	52.8	2.5	1890	4	US-09-134-001C-1557 Sequence 1557, Ap
14	50.2	2.4	1448	4	US-08-936-165A-113 Sequence 113, Appl
15	49.2	2.3	4145	4	US-09-302-620B-82 Sequence 82, Appl
16	46.2	2.2	7218	1	US-08-232-463-14 Sequence 14, Appl
17	46	2.2	4206	4	US-09-302-620B-81 Sequence 81, Appl
18	44	2.1	307	4	US-09-172-711-24 Sequence 24, Appl
19	43.4	2.1	7218	1	US-08-232-463-14 Sequence 14, Appl
20	40.6	1.9	382	4	US-08-976-259-78 Sequence 78, Appl
21	39.6	1.9	4041	1	US-08-147-812-4 Sequence 4, Appl
22	39.6	1.9	4110	3	US-09-123-708-1 Sequence 1, Appl
23	39.6	1.9	4110	3	US-09-123-708-1 Sequence 1, Appl
24	39.6	1.9	4165	1	US-08-147-812-6 Sequence 6, Appl
25	36.6	1.7	3701	1	US-08-553-279-1 Sequence 1, Appl
26	36.6	1.7	43546	4	US-09-146-053-6 Sequence 6, Appl
27	36	1.7	4089	1	US-07-908-245-1 Sequence 1, Appl

28	36	1.7	4097	3	US-09-123-708-5 Sequence 5, Appl
29	36	1.7	4097	3	US-09-123-708-5 Sequence 5, Appl
30	35.4	1.7	1296	4	US-09-134-001C-1501 Sequence 1501, Ap
31	34.2	1.6	1569	1	US-08-680-726A-57 Sequence 57, Appl
32	34.2	1.6	1569	3	US-09-092-409-57 Sequence 57, Appl
33	34.2	1.6	10592	1	US-08-680-726A-51 Sequence 51, Appl
34	34.2	1.6	10592	1	US-08-680-726A-52 Sequence 52, Appl
35	34.2	1.6	10592	3	US-09-092-409-51 Sequence 51, Appl
36	34.2	1.6	10592	3	US-09-092-409-52 Sequence 52, Appl
37	34	1.6	2223	1	US-08-257-073-4 Sequence 4, Appl
38	33.8	1.6	1702	1	US-08-261-822A-14 Sequence 14, Appl
39	33.8	1.6	1702	5	PCR-US95-07744A-14 Sequence 14, Appl
40	33.8	1.6	4146	1	US-08-261-822A-15 Sequence 15, Appl
41	33.8	1.6	4146	5	PCR-US95-07744A-15 Sequence 15, Appl
42	33.2	1.6	2277	1	US-08-676-974-2 Sequence 2, Appl
43	33.2	1.6	2277	1	US-08-676-974-2 Sequence 2, Appl
44	33.2	1.6	2277	2	US-09-098-487-2 Sequence 2, Appl
45	32.6	1.6	2193	4	US-09-427-261-2 Sequence 2, Appl

ALIGNMENTS

RESULT 1									
US-09-318-448-23									
Sequence 23, Application US/09318448									
Patent No. 6210950									
GENERAL INFORMATION:									
APPLICANT: Johnson, William G.									
APPLICANT: Stearns, Edward S.									
TITLE OF INVENTION: METHODS FOR DIAGNOSING, PREVENTING, AND TREATING									
FILE REFERENCE: 601-1-057									
CURRENT APPLICATION NUMBER: US/09/318,448									
CURRENT FILING DATE: 1999-05-25									
NUMBER OF SEQ ID NOS: 46									
SOFTWARE: PatentIn Ver. 2.0									
SEQ ID NO 23									
LENGTH: 3259									
TYPE: DNA									
ORGANISM: Homo sapiens									
US-09-318-448-23									
Query Match									
Best Local Similarity 99.9% Score 2095.4; DB 4; Length 3259;									
Matches 2096; Conservative 0; Mismatches 1; Indels 0; Gaps 0;									
OY	1	ATGAGGAGGTTCTGTTACTATATGCTACACAGGAGGAGCAAGGCCATCGCAGAA	60						
DB	80	ATGAGGAGGTTCTGTTACTATATGCTACACAGGAGGAGCAAGGCCATCGCAGAA	139						
OY	61	GAATATGTGACAGAGCTGTGTACATGATTTTTCAGATCTTCACTGTTAGTGA	120						
DB	140	GAATATGTGACAGAGCTGTGTACATGATTTTTCAGATCTTCACTGTTAGTGA	199						
OY	121	TCGGAATGATGACCTAAACGCAACAGCTCTCTGTTGTGTGTTCTACACG	180						
DB	200	TCGGAATGATGACCTAAACGCAACAGCTCTCTGTTGTGTGTTCTACACG	259						
OY	181	GGCAGGAGAGCCAGCCAGCAGACAGCCGCAAGTTGTTAAGGAATACAGAACCA	240						
DB	260	GGCAGGAGAGCCAGCCAGCAGACAGCCGCAAGTTGTTAAGGAATACAGAACCA	319						
OY	241	CTGCGGTTGATTTTCTGCTACCTGCGGATGAGTTACTGCTGCTGCTGATTC	300						
DB	320	CTGCGGTTGATTTTCTGCTACCTGCGGATGAGTTACTGCTGCTGCTGATTC	379						
OY	301	TACACCTCTTTTGAATGGGGGGAAGTAATGAATGAACGACTCAAGAGCTTG	360						
DB	380	TACACCTCTTTTGAATGGGGGGAAGTAATGAATGAACGACTCAAGAGCTTG	439						
OY	361	CGGATTTCTATGACACTGACATGACATGACATGACATGACATGACATGACAT	420						

Db 440 CGGCAATTTCTATGACACTGACATGACAGATGACTGTGTAGTTTGAACCTTGTGTTGAC 499  
 Oy 421 CCGTGATGTTGCTGACCTCTGCGCAGCCCTCAGAAAGCAATTTTAGTGCAAGAGAGACAA 480  
 Db 500 CCGTGATGTTGCTGACCTCTGCGCAGCCCTCAGAAAGCAATTTTAGTGCAAGAGAGACAA 559  
 Oy 481 GAGGAGATAGTGGCGCAGCTCCCGGTGCGATCACCCTGCATCCTTGAGAGACAGACCTTGTG 540  
 Db 560 GAGGAGATAGTGGCGCAGCTCCCGGTGCGATCACCCTGCATCCTTGAGAGAGACAGACCTTGTG 619  
 Oy 541 AAGTCAGAGCTGCTACACATGATGATCTCACTGAGCTTGAAGATTTGAGATTTGAGATTCAGGA 600  
 Db 620 AAGTCAGAGCTGCTACACATGATGATCTCACTGAGCTTGAAGATTTGAGATTTGAGATTCAGGA 679  
 Oy 601 AGAAGAGATTCAGAGCTTTTGAAGCAAAATGACAGAGCAACCAATCCCAATGTTGTA 660  
 Db 680 AGAAGAGATTCAGAGCTTTTGAAGCAAAATGACAGAGCAACCAATCCCAATGTTGTA 739  
 Oy 661 ATTGAGAGCTTTGAGTCTCTACCTTACCCGTTGCGTACCCGCTCAGACAGCTCTCTGTG 720  
 Db 740 ATTGAGAGCTTTGAGTCTCTACCTTACCCGTTGCGTACCCGCTCAGACAGCTCTCTGTG 799  
 Oy 721 AATATTCCTGTTTACCCCGCAATATTACAGGTACATCTGCGAGAGATCTCTTGGCCAG 780  
 Db 800 AATATTCCTGTTTACCCCGCAATATTACAGGTACATCTGCGAGAGATCTCTTGGCCAG 859  
 Oy 781 GAGGAAAGCAAGATATCTGTGACTTCAGAGATCCAGTTTTCAGAGTCCCAATTTCAAG 840  
 Db 860 GAGGAAAGCAAGATATCTGTGACTTCAGAGATCCAGTTTTCAGAGTCCCAATTTCAAG 919  
 Oy 841 GCAGTTCACCTTACTAGCAATGATGCCATTAAGAACACTCTGCTGTGTAATTTGACACTT 900  
 Db 920 GCAGTTCACCTTACTAGCAATGATGCCATTAAGAACACTCTGCTGTGTAATTTGACACTT 979  
 Oy 901 TCAATATCAGACTTTTCTATCAGCTGAGATGCTTACAGCTGATCTGCTTGAACAGT 960  
 Db 980 TCAATATCAGACTTTTCTATCAGCTGAGATGCTTACAGCTGATCTGCTTGAACAGT 1039  
 Oy 961 GATTCTGAGTACAAAGCTCTACTCCAAAGACTGACGTTGAAGATTAAGAGAGACACTGC 1020  
 Db 1040 GATTCTGAGTACAAAGCTCTACTCCAAAGACTGACGTTGAAGATTAAGAGAGACACTGC 1099  
 Oy 1021 GTCTCTTTGAATAAAGGCGACACAAAGAAAGAGAGTACCTTACCCAGCATATA 1080  
 Db 1100 GTCTCTTTGAATAAAGGCGACACAAAGAAAGAGAGTACCTTACCCAGCATATA 1159  
 Oy 1081 CCTCGGAGATGTTCTCTCAGCTTATTTTACCTGCTGTGTTGAATCCGAGCAATTCCT 1140  
 Db 1160 CCTCGGAGATGTTCTCTCAGCTTATTTTACCTGCTGTGTTGAATCCGAGCAATTCCT 1219  
 Oy 1141 AAAAAGCATTGTTGCGAGCCCTTGTGAGCTATACAGTGAAGTGTGAAGAGCGCAGG 1200  
 Db 1220 AAAAAGCATTGTTGCGAGCCCTTGTGAGCTATACAGTGAAGTGTGAAGAGCGCAGG 1279  
 Oy 1201 CTACAGAGCTGTGCTAGTAACCAAGGGGACAGCCATTAACCCGCTTGTGAGAGATGCC 1260  
 Db 1280 CTACAGAGCTGTGCTAGTAACCAAGGGGACAGCCATTAACCCGCTTGTGAGAGATGCC 1339  
 Oy 1261 TGTGCTGCTGTTGATGATCTCTCTGCTTCCCTTCTGCGAGCCAGCCTGAGTCTC 1320  
 Db 1340 TGTGCTGCTGTTGATGATCTCTCTGCTTCCCTTCTGCGAGCCAGCCTGAGTCTC 1399  
 Oy 1321 CTGCTCGAACATCTTCTAACTTCAACCCAGACCATATTCGTGTGCAAGCTCAAGTTTA 1380  
 Db 1400 CTGCTCGAACATCTTCTAACTTCAACCCAGACCATATTCGTGTGCAAGCTCAAGTTTA 1459  
 Oy 1381 TTTACCCAGGAAGCTTCATTTTGTCTCAACATTTGGAATTTGTCTACTGCGACA 1440  
 Db 1460 TTTACCCAGGAAGCTTCATTTTGTCTCAACATTTGGAATTTGTCTACTGCGACA 1519  
 Oy 1441 ACAGAGGTTCTGCGGAAGGAGTATGTACAGCTGCGGCTGCTGTTGCTGCTTCAAGT 1500  
 Db 1520 ACAGAGGTTCTGCGGAAGGAGTATGTACAGCTGCGGCTGCTGTTGCTGCTTCAAGT 1579

Oy 1501 CTTCAGCCAAACATACATGATCCATGAAAGACAGCGGAAAGCCCTGCTCTTAAGATA 1560  
 Db 1580 CTTCAGCCAAACATACATGATCCATGAAAGACAGCGGAAAGCCCTGCTCTTAAGATA 1639  
 Oy 1561 TGCATCTCTCTGGAACAAACAAATTTTCCACTTACCAATGACCCCTCAATCCCATC 1620  
 Db 1640 TGCATCTCTCTGGAACAAACAAATTTTCCACTTACCAATGACCCCTCAATCCCATC 1699  
 Oy 1621 ATATGAGGCTGCGAGAACCCGATAGCCCGCTTATGAGTCTCTCAACCAATAGAG 1680  
 Db 1700 ATATGAGGCTGCGAGAACCCGATAGCCCGCTTATGAGTCTCTCAACCAATAGAG 1759  
 Oy 1681 AAATCCAGAAACAAACCCAGATGAAATTTTGACCAATGCTGTTTGTGCTGC 1740  
 Db 1760 AAATCCAGAAACAAACCCAGATGAAATTTTGACCAATGCTGTTTGTGCTGC 1819  
 Oy 1741 AGCATAGAGATAGGATTAATCTATTCAGAAAGAGCTCAGACATTTCTTAAGCATGG 1800  
 Db 1820 AGCATAGAGATAGGATTAATCTATTCAGAAAGAGCTCAGACATTTCTTAAGCATGG 1879  
 Oy 1801 ATCTTAATCTATTAAGGTTTCTCTCAAGAGATGCTCTGTTGGGAGAGAGAGCC 1860  
 Db 1880 ATCTTAATCTATTAAGGTTTCTCTCAAGAGATGCTCTGTTGGGAGAGAGAGCC 1939  
 Oy 1861 CCAGCAAGATATGTACAAAGACATCCAGCTTATGAGGAGAGTGGGAGAGATCTC 1920  
 Db 1940 CCAGCAAGATATGTACAAAGACATCCAGCTTATGAGGAGAGTGGGAGAGATCTC 1999  
 Oy 1921 CTCGAGAGAGAGGCTATTTATGTTGTGTGAGATGCAAAATATGCGCAGAGATGA 1980  
 Db 2000 CTCGAGAGAGAGGCTATTTATGTTGTGTGAGATGCAAAATATGCGCAGAGATGA 2059  
 Oy 1981 CATGATGCGCTTGTGCAAAATATAGCAAGAGGTTGAGTTGAAGAACTAGAAAGCATG 2040  
 Db 2060 CATGATGCGCTTGTGCAAAATATAGCAAGAGGTTGAGTTGAAGAACTAGAAAGCATG 2119  
 Oy 2041 AAAACCTGCGCACTTTAAAGAGAAAGAGCTTACCTTACAGATATTTGGTCATAA 2097  
 Db 2120 AAAACCTGCGCACTTTAAAGAGAAAGAGCTTACCTTACAGATATTTGGTCATAA 2176

RESULT 2  
 US-08-905-223-71  
 : Sequence 71, Application US/08905223  
 : Patent No. 622029  
 :  
 : GENERAL INFORMATION:  
 : APPLICANT: Edwards, Jean-Baptiste D.  
 : APPLICANT: Duclert, Aymeric  
 : APPLICANT: Lacroix, Bruno  
 : TITLE OF INVENTION: 5' ESTS FOR SECRETED PROTEINS  
 : NUMBER OF SEQUENCES: 503  
 : CORRESPONDENCE ADDRESS:  
 : ADDRESSEE: Knobbe, Martens, Olson & Bear  
 : STREET: 501 West Broadway  
 : CITY: San Diego  
 : STATE: California  
 : COUNTRY: USA  
 : ZIP: 92101-3505  
 :  
 : COMPUTER READABLE FORM:  
 : MEDIUM TYPE: Floppy Disk  
 : COMPUTER: IBM PC compatible  
 : OPERATING SYSTEM: Win95  
 : SOFTWARE: Word  
 :  
 : CURRENT APPLICATION DATA:  
 : APPLICATION NUMBER: US/08/905,223  
 : FILING DATE:  
 : CLASSIFICATION: 536  
 : ATTORNEY/AGENT INFORMATION:  
 : NAME: Israelien, Ned A.  
 : REGISTRATION NUMBER: 29,655  
 : REFERENCE/DOCKET NUMBER:  
 : TELECOMMUNICATION INFORMATION:

```

1 TELEPHONE: (619) 235-8550
2 TELEFAX: (619) 235-0176
3 INFORMATION FOR SEQ ID NO: 71:
4 SEQUENCE CHARACTERISTICS:
5     LENGTH: 390 base pairs
6     TYPE: NUCLEIC ACID
7     STRANDEDNESS: DOUBLE
8     TOPOLOGY: LINEAR
9     MOLECULE TYPE: CDNA
10    ORIGINAL SOURCE:
11    ORGANISM: Homo Sapiens
12    TISSUE TYPE: Brain
13
14    FEATURE:
15     NAME/KEY: sig-peptide
16     LOCATION: 289..357
17     IDENTIFICATION METHOD: Von Heijne matrix
18     OTHER INFORMATION: score 6.9
19
20     OTHER INFORMATION: seq SLSLASHSHSVSC/SN

```

Query Match	18.4%;	Score 386.4;	DB 4;	Length 390;
Best Local Similarity	99.7%;	Pred. No. 1.7e-116;		
Matches 387; Conservative	0;	Mismatches 1;	Indels 0;	Gaps 0;

OY	968	AGGTACAAAGCCTACTCCAAAGACGCGAGCTTGAAGATATAAAGAGACGACCTGCGCTTT	102
Db	1	AAGTACAAAGCCTACTCCAAAGACTGCGAGCTTGAAGATATAAAGAGACGACCTGCGCTTT	60
OY	1028	TGAAATATAAGGACACACAAGAAAGAAAGGAGCTACTTACCCTCAGCATATACCTGGCG	108
Db	61	TGAAATATAAGGACACACAAGAAAGAAAGGAGCTACTTACCCTCAGCATATACCTGGCG	120
OY	1088	GATGTTCTCTCCAGTTCATTTTTCACCTGGTGTCTTGAATATCCGAGCAATTCCTAAAAAG	114
Db	121	GATGTTCTCTCCAGTTCATTTTTCACCTGGTGTCTTGAATATCCGAGCAATTCCTAAAAAG	180
OY	1148	CATTTTTCGAGGCCCTTGTGACATTTACAGACAGTGCATAAAGGCGACGCTACAGG	120
Db	181	CATTTTTCGAGGCCCTTGTGACATTTACAGACAGTGCATAAAGGCGACGCTACAGG	240
OY	1208	AGCTGTGCAGTAAACAAAGGGGACGCGCATTTATAGCGGCTTGTATAGAGATGCTGTGCT	126
Db	241	AGCTGTGCAGTAAACAAAGGGGACGCGCATTTATAGCGGCTTGTATAGAGATGCTGTGCT	300
OY	1268	GCTTGTGGATCTCCTCCTCGCTTCCCTTCTTGGCAGCCACACTCACTGCTGCTCG	132
Db	301	GCTTGTGGATCTCCTCCTCGCTTCCCTTCTTGGCAGCCACACTCACTGCTGCTCG	360
OY	1328	AACATCTTCCTAAACTTCAACCCAGACC	1355
Db	361	AACATCTTCCTAAACTTCAACCCAGACC	388

RESULT 3  
 US-08-365-486A-18  
 Sequence 18, Application US/08365486A  
 Patent No. 5834306  
 GENERAL INFORMATION:  
 APPLICANT: Webster, Keith A.  
 APPLICANT: Bishopric, Nanette H.  
 TITLE OF INVENTION: Tissue Specific Hypoxia  
 TITLE OF INVENTION: Therapeutic Constructs  
 NUMBER OF SEQUENCES: 31  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: Dehlinger & Associates  
 STREET: 350 Cambridge Avenue, Suite 250  
 CITY: Palo Alto  
 STATE: CA  
 COUNTRY: USA  
 ZIP: 94306  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible

```

OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/365,486A
FILING DATE: 23-DEC-1994
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Sholtz, Charles K.
REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 8255-0018
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
TELEFAX: (415) 324-0960
INFORMATION FOR SEQ ID NO: 18:
SEQUENCE CHARACTERISTICS:
LENGTH: 4353 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: cDNA to mRNA
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
INDIVIDUAL ISOLATE: Human NOS-1 gene, Fujisawa, et al,
INDIVIDUAL ISOLATE: J. Neurochem 63:140 1994
FEATURE:
NAME/KEY: CDS
LOCATION: 1..4305
US-08-365-486A-18

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Query Match	3.08;	Score 63.6;	DB 2;	Length 4353;
Best Local Similarity	48.88;	Pred. NO. 5.5e-10;		
Matches 245;	Conservative 0;	Mismatches 239;	Indels 18;	Gaps 2;

QY	1588	TTCCACTTACAGATGACCCCTCAATCCCATCATATATGTGTGGGTCCAGAGAACGGCGATA	1647
Db	3715	TTTCACCTGCCCCGGAACCCCAAGTCCCTCCCTCATCTCGTTGGACAGGGACGGCATTT	3774
QY	1648	GCCCCGTATATGGGTTCCTAACATATGAGAGAAATCCAAAGAACCAACACCGCCAGATGSA	1707
Db	3775	GCCCCTTTCGGAAGCTTCTGGCAACACGC---GCATTTGATATCCAAACACAAAGAAATG	3831
QY	1708	AATTTTGGAGCAATGTGGTTCTTTTGTGGTGCAGCATTAAGATATAGGATATATCTATTC	1766
Db	3832	AACCCCCTCCCATATGCTCTGCTCTGGGTGCGGGCAATCCAAATATGATCATATCTAC	3891
QY	1768	AGAAAGAGCTCAGACATTTCTTAAGCATGGATCTTAACTCATCTTAAAGTTTCTTTC	1827
Db	3892	AGGAGAGAGACCTTCAGAGCCCAAGAAAGGGGGCTTTCAAGAGCTTACACGGCTTAC	3951
QY	1828	TCAAGAGATGCTCTGTTGGGGAGAGGAGACCCACGAAGTATGTCAAGACACATC	1887
Db	3952	TCCC-----GGGAGCCACACAAACCAAAAGATGCTGCAGACATCTGTG	3996
QY	1888	CAGCTTTCATGGCCAGCAGTGGGCGGAGATCTCTCCAGGAGAACGGCATATTTATGTG	1947
Db	3997	CAGGAGCAGCTGGCGGAGTCTGTGTACCGACCCCTGAAGGAGCAAGGGGCGCACATATAC	4056
QY	1948	TGTGGAGATGCCAAAGAATATGGCCAGAGATGTACATGATGCCCTTGTGCCAATAATAAGC	2007
Db	4057	GTCGTGTGGGAGACGTACCATGTGGCTGTGTATCTCCAAAGGCACTCCACGCCATCATGACC	4116
QY	2008	AAAGAGCTTGAGTGTGAAGAACTAGAACATGAAACCTGTGGCCACTTTTAAAGAGAA	2067
Db	4117	CAGCAGGGGAGAGCTCTCGGACAGAGAGACCGCGCATTCATCAGCCGATAGAGGATGAC	4176
QY	2068	AAAGCTATCTTCAGGATATTT	2089
Db	4177	AACGATACCAATGAGGATATTT	4198

RESULT 4  
US-08-880-342-18



US-08-365-486A-20

Query Match 3.0%; Score 63.6; DB 2; Length 4780;

Best Local Similarity 48.8%; Pred. No. 5.9e-10;

Matches 245; Conservative 0; Mismatches 239; Indels 18; Gaps 2;

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OY 1588 TTCACCTTACAGATGACCCCTCAATCCCATCATATGTTGGTGGACAGAACCGGCAAT 1647
    ||||| ||| ||||| ||||| ||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4142 TTCACACCTGCCCCGGAACCCCAAGTCCCTCATCTCTGTTGACACAGGACCGGCAAT 4201
OY 1648 GCCCGCTTATTTGGTCTTCTACACATAGAGAAACTCCAAAGAACACCCCAATGGA 1707
    ||||| ||| ||||| ||||| ||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4202 GCCCTTTCGGAAGCTTCTGGCAACAGCG---GCAATTTGATATCCAAACAAAGGAATG 4258
OY 1708 AATTTTGAGCAATGTGTTTGTGCTGACGACATTAAGATAGGATATATCTATTC 1767
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4259 AACCCCTGCCCATGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 4318
OY 1768 AGAAAGAGCTCAGACATTTCTTAAGCATGGGATCTTAACATCTAAAGGTTTCCTTC 1827
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4319 AGGGAAGAGACCTCGACAGGCCAAGAACAGGGGCTTCAGAGAGCTGTACACGGCTTAC 4378
OY 1828 TCACAGATGCTCTGTTGGGAGAGAGAACCCCAAGCAAGTATGTACAGACAAATC 1887
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4379 TCCC-----GGGAGCCAGACAAACCAAGAAAGATGCTGACGAGCAATCCTG 4423
OY 1888 CAGCTTCATGGCCAGAGTGGCGAGAAATCCTCTCCACAGAGACGGCCATATTATGTG 1947
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4424 CAGGAGCAGCTGGCGAGTCTGTACCGAGCCCTGAAGAGCAAGGGGCCACATATAC 4483
OY 1948 TGTGAGATGCAAGAAATATGCGCAAGATGTACATGATGACCTTGTGCAAAATTAATAC 2007
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4484 GTCTGTGGGAGCTGACCATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 4543
OY 2008 AAAGAGTTGGATGTAAGAAACTAGAACGATGAAGAACCTTGCCACTTTAAAGAGAA 2067
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4544 CAGCAGGGGAGACCTCTCGGCAAGAGACCGCGCGTATTCATGACCGGATGAGGATGAC 4603
OY 2068 AACGCTACCTCAGATATTT 2089
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4604 AACCATACCATGAGATATTT 4625
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
```

RESULT 6

US-09-123-708-3

Sequence 3, Application US/09123708

Patent No. 6146887

GENERAL INFORMATION:

APPLICANT: SCHRADER, Juergen

APPLICANT: GODECKE, Axel

TITLE OF INVENTION: DNA EXPRESSION VECTORS FOR USE IN GENE THERAPEUTIC

FILE REFERENCE: 511169-2003

CURRENT APPLICATION NUMBER: US/09/123,708

EARLIER FILING DATE: 1998-07-28

EARLIER APPLICATION NUMBER: 08/553,503

EARLIER FILING DATE: 1996-03-01

EARLIER APPLICATION NUMBER: P4411402.8

NUMBER OF SEQ ID NOS: 6

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 3

LENGTH: 4780

TYPE: DNA

ORGANISM: Cytomegalovirus

US-09-123-708-3

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OY 1588 TTCACCTTACAGATGACCCCTCAATCCCATCATATGTTGGTGGACAGAACCGGCAAT 1647
    ||||| ||| ||||| ||||| ||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4142 TTCACACCTGCCCCGGAACCCCAAGTCCCTCATCTCTGTTGACACAGGACCGGCAAT 4201
OY 1648 GCCCGCTTATTTGGTCTTCTACACATAGAGAAACTCCAAAGAACACCCCAATGGA 1707
    ||||| ||| ||||| ||||| ||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4202 GCCCTTTCGGAAGCTTCTGGCAACAGCG---GCAATTTGATATCCAAACAAAGGAATG 4258
OY 1708 AATTTTGAGCAATGTGTTTGTGCTGACGACATTAAGATAGGATATATCTATTC 1767
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4259 AACCCCTGCCCATGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 4318
OY 1768 AGAAAGAGCTCAGACATTTCTTAAGCATGGGATCTTAACATCTAAAGGTTTCCTTC 1827
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4319 AGGGAAGAGACCTCGACAGGCCAAGAACAGGGGCTTCAGAGAGCTGTACACGGCTTAC 4378
OY 1828 TCACAGATGCTCTGTTGGGAGAGAGAACCCCAAGCAAGTATGTACAGACAAATC 1887
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4379 TCCC-----GGGAGCCAGACAAACCAAGAAAGATGCTGACGAGCAATCCTG 4423
OY 1888 CAGCTTCATGGCCAGAGTGGCGAGAAATCCTCTCCACAGAGACGGCCATATTATGTG 1947
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4424 CAGGAGCAGCTGGCGAGTCTGTACCGAGCCCTGAAGAGCAAGGGGCCACATATAC 4483
OY 1948 TGTGAGATGCAAGAAATATGCGCAAGATGTACATGATGACCTTGTGCAAAATTAATAC 2007
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4484 GTCTGTGGGAGCTGACCATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 4543
OY 2008 AAAGAGTTGGATGTAAGAAACTAGAACGATGAAGAACCTTGCCACTTTAAAGAGAA 2067
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4544 CAGCAGGGGAGACCTCTCGGCAAGAGACCGCGCGTATTCATGACCGGATGAGGATGAC 4603
OY 2068 AACGCTACCTCAGATATTT 2089
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4604 AACCATACCATGAGATATTT 4625
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
```

RESULT 7

US-09-123-624-3

Sequence 3, Application US/09123624

Patent No. 6149936

GENERAL INFORMATION:

APPLICANT: SCHRADER, Juergen

APPLICANT: GODECKE, Axel

TITLE OF INVENTION: DNA EXPRESSION VECTORS FOR USE IN THE GENE THERAPEUTIC

FILE REFERENCE: 511169-2004

CURRENT APPLICATION NUMBER: US/09/123,624

EARLIER FILING DATE: 1998-07-28

EARLIER APPLICATION NUMBER: 08/553,503

EARLIER FILING DATE: 1996-03-01

EARLIER APPLICATION NUMBER: 4411402.8

NUMBER OF SEQ ID NOS: 6

SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO 3

LENGTH: 4780

TYPE: DNA

ORGANISM: Homo sapiens

US-09-123-624-3

```
OY 1588 TTCACCTTACAGATGACCCCTCAATCCCATCATATGTTGGTGGACAGAACCGGCAAT 1647
    ||||| ||| ||||| ||||| ||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4142 TTCACACCTGCCCCGGAACCCCAAGTCCCTCATCTCTGTTGACACAGGACCGGCAAT 4201
OY 1648 GCCCGCTTATTTGGTCTTCTACACATAGAGAAACTCCAAAGAACACCCCAATGGA 1707
    ||||| ||| ||||| ||||| ||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4202 GCCCTTTCGGAAGCTTCTGGCAACAGCG---GCAATTTGATATCCAAACAAAGGAATG 4258
OY 1708 AATTTTGAGCAATGTGTTTGTGCTGACGACATTAAGATAGGATATATCTATTC 1767
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4259 AACCCCTGCCCATGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 4318
OY 1768 AGAAAGAGCTCAGACATTTCTTAAGCATGGGATCTTAACATCTAAAGGTTTCCTTC 1827
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4319 AGGGAAGAGACCTCGACAGGCCAAGAACAGGGGCTTCAGAGAGCTGTACACGGCTTAC 4378
OY 1828 TCACAGATGCTCTGTTGGGAGAGAGAACCCCAAGCAAGTATGTACAGACAAATC 1887
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4379 TCCC-----GGGAGCCAGACAAACCAAGAAAGATGCTGACGAGCAATCCTG 4423
OY 1888 CAGCTTCATGGCCAGAGTGGCGAGAAATCCTCTCCACAGAGACGGCCATATTATGTG 1947
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4424 CAGGAGCAGCTGGCGAGTCTGTACCGAGCCCTGAAGAGCAAGGGGCCACATATAC 4483
OY 1948 TGTGAGATGCAAGAAATATGCGCAAGATGTACATGATGACCTTGTGCAAAATTAATAC 2007
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4484 GTCTGTGGGAGCTGACCATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 4543
OY 2008 AAAGAGTTGGATGTAAGAAACTAGAACGATGAAGAACCTTGCCACTTTAAAGAGAA 2067
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4544 CAGCAGGGGAGACCTCTCGGCAAGAGACCGCGCGTATTCATGACCGGATGAGGATGAC 4603
OY 2068 AACGCTACCTCAGATATTT 2089
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4604 AACCATACCATGAGATATTT 4625
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
```

```

Db      4259 AACCCCTGCCCATGTCTGCTTCGGGTCGCCGCAATCCAGATAGATCATATCTAC 4318
QY      1768 AGAAGAAGAGCTCAGACATTTCTTAAAGCATGGAGATCTTAAGTCTAAAGTTCTCTC 1827
        || ||||| || || || || || || || || || || || || || || || || ||
Db      4319 AGGGAAGAGACCTGTGAGGCCAAGAACAGGGGGTCTTACAGAGAGTGTACAGCGCTTAC 4378
QY      1828 TCAGAGATGCTCTGTTGGGAGAGAGAGGCCCGACGAAAGTATGTACAGACACATC 1887
        || || || || || || || || || || || || || || || || || || || ||
Db      4379 TCCC-----GGGAGCCAGACAAACCAAGAGTAGCTGACAGACATCTCG 4423
QY      1888 CAGCTTCATGGCAGAGGTGGCGAATCTCTCCAGAGACAGCGCCATATTATGTG 1947
        || || || || || || || || || || || || || || || || || || || ||
Db      4424 CAGAGACCTGCGCGAGTCTGTGTACCGAGCCCTGAAGAGCAAGGGGCCACATATAC 4483
QY      1948 TGTGAGATGCAAGAAATATGGCCAAAGATGTACATGATGCCCTTGTGCAATTAATAC 2007
        || || || || || || || || || || || || || || || || || || || ||
Db      4484 GTCTGTGGGAGCTCAGCATGGCTGTGATGTCTCAAGGACATCCAGGCGCATGACCC 4543
QY      2008 AAAGAGTTGGAGTTGAAAACTAGACAGCAATGAAAACCTTGCCACTTTAAAGAGAA 2067
        || || || || || || || || || || || || || || || || || || || ||
Db      4544 CAGCAGGGGAGACCTCTCGGACAGAGACGCCGCGTATTCATCAGCGGATGAGGGATAC 4603
QY      2068 AAACGCTACCTCAGGATATT 2089
        || || || || || || || || || || || || || || || || || || || ||
Db      4604 AACCATACCATGAGATATT 4625

```

# RESULT 8 US-08-880-342-20

```

: Sequence 20, Application US/08880342
: Patent No. 6218179
: GENERAL INFORMATION:
: APPLICANT: Webster, Keith A.
: APPLICANT: Bishopric, Nanette H.
: APPLICANT: Murphy, Brian
: APPLICANT: Laderoute, Keith R.
: APPLICANT: Green, Christopher J.
: TITLE OF INVENTION: Tissue Specific Hypoxia Regulated
: NUMBER OF SEQUENCES: 37
: CORRESPONDENCE ADDRESS:
: ADDRESS: Dehlinger & Associates
: STREET: 350 Cambridge Avenue, Suite 250
: CITY: Palo Alto
: STATE: CA
: COUNTRY: USA
: ZIP: 94306
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: Patent Release #1.0, Version #1.25
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/08/880,342
: FILING DATE: 23-JUN-1997
: CLASSIFICATION: 514
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: PCT/IB95/00996
: FILING DATE: 13-NOV-1995
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: US 08/365,486
: FILING DATE: 23-DEC-1994
: ATTORNEY/AGENT INFORMATION:
: NAME: Sholtz, Charles K.
: REGISTRATION NUMBER: 38,615
: REFERENCE/DOCKET NUMBER: 8255-0018.30
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (415) 324-0860
: TELEFAX: (415) 324-0960
: INFORMATION FOR SEQ ID NO: 20:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 4780 base pairs
: TYPE: nucleic acid

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```

: STRANDEDNESS: double
: TOPOLOGY: linear
: MOLECULE TYPE: cDNA to mRNA
: HYPOTHETICAL: NO
: ANTI-SENSE: NO
: ORIGINAL SOURCE:
: INDIVIDUAL ISOLATE: Human NOS-SN gene, Nakane, et al,
: INDIVIDUAL ISOLATE: FEBS Lett 316:175 (1993)
: FEATURE:
: NAME/KEY: CDS
: LOCATION: 431..4732
: US-08-880-342-20

```

```

Query Match      3.0%; Score 63.6; DB 4; Length 4780;
Best Local Similarity 48.8%; Pred No. 5.9e-10;
Matches 245; Conservative 0; Mismatches 239; Indels 18; Gaps 2;

```

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QY      1588 TTCACCTTACAGATGACCCCTCAATCCCATATATGTTGGTCCAGAAACCGCATTA 1647
        || || || || || || || || || || || || || || || || || || || ||
Db      4142 TTCCACCTGCCCCGGAACCCCAAGTCCCTCATCTGTTGGACACAGGACCGGCAATT 4201
        || || || || || || || || || || || || || || || || || || || ||
QY      1648 GCCCCGTTATGSGTTCCTACACATAGAGAACTCCAAAGAACACCCAGATGGA 1707
        || || || || || || || || || || || || || || || || || || || ||
Db      4202 GCCCCTTCCGAAGCTTCTGGCAACAGCG--GCAATTGATATCCAAACAAAGGAATG 4258
        || || || || || || || || || || || || || || || || || || || ||
QY      1708 AATTTGGAGCAATGTGTTGTTTGTGCTGCAGAGCAATAGCATAGGATATATCTATTC 1767
        || || || || || || || || || || || || || || || || || || || ||
Db      4259 AACCCCTGCCCATGTCTGCTTCGGGTCCGCGCAATCCAGATAGATCATATCTAC 4318
QY      1768 AGAAGAAGCTCAGACATTTCTTAAAGCATGGAGATCTTAAGTCTAAAGTTCTCTC 1827
        || || || || || || || || || || || || || || || || || || || ||
Db      4319 AGGGAAGAGACCTCTCAGGCCAAGAACAGGGGGTCTTACAGAGACTGTACACGGCTTAC 4378
QY      1828 TCAGAGATGCTCTGTTGGGAGAGAGAGCCCGACGAAGTATGTACAGACACATC 1887
        || || || || || || || || || || || || || || || || || || || ||
Db      4379 TCCC-----GGGAGCCAGACAAACCAAGAGTAGCTCAGACATCTCG 4423
QY      1888 CAGCTTCATGGCAGAGGTGGCGAATCTCTCCAGAGAACGGCCATATTATATGTG 1947
        || || || || || || || || || || || || || || || || || || || ||
Db      4424 CAGAGACAGCTGCGGAGTCTGTGTACCGAGCCCTGAAGAGCAAGGGGCCACATATAC 4483
QY      1948 TGTGAGATGCAAGAAATATGGCCAAAGATGTACATGATGCCCTTGTGCAATTAATAC 2007
        || || || || || || || || || || || || || || || || || || || ||
Db      4484 GTCTGTGGGAGCTCCACCATGTGCTGATGTCTCAAGGACATCCAGCGCATGATGAC 4543
QY      2008 AAAGAGTTGGAGTTGAAAACTAGACAGCAATGAAAACCTTGCCACTTTAAAGAGAA 2067
        || || || || || || || || || || || || || || || || || || || ||
Db      4544 CAGCAGGGGAGACCTCTCGGACAGAGACGCCGCGTATTCATCAGCGGATGAGGGATAC 4603
QY      2068 AAACGCTACCTCAGGATATT 2089
        || || || || || || || || || || || || || || || || || || || ||
Db      4604 AACCATACCATGAGATATT 4625

```

## RESULT 9

```

: Sequence 12, Application US/08365486A
: Patent No. 5834306
: GENERAL INFORMATION:
: APPLICANT: Webster, Keith A.
: APPLICANT: Bishopric, Nanette H.
: TITLE OF INVENTION: Tissue Specific Hypoxia Regulated
: NUMBER OF SEQUENCES: 31
: CORRESPONDENCE ADDRESS:
: ADDRESS: Dehlinger & Associates
: STREET: 350 Cambridge Avenue, Suite 250
: CITY: Palo Alto
: STATE: CA
: COUNTRY: USA
: ZIP: 94306
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk

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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/365,486A
FILING DATE: 23-DEC-1994
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Sholtz, Charles K
REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 8255-0018
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
TELEFAX: (415) 324-0960
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 5057 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: cDNA to mRNA
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
INDIVIDUAL ISOLATE: rat bnos cDNA
FEATURE:
NAME/KEY: CDS
LOCATION: 349..4638
US-08-365-486A-12

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QY 1576 ACAACAAATCTTTCACCTTACAGATGACCCCTCAATCCCATCATATATGGTGGTCA 1635  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1276 AGAACATCGAACCTTACAGACTTCAGCTGACCTTAAGTCCCGGTTATCATGTTGGCCT 1335  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1536 GGAACCGGCATAGCCCGTTTATTTGGTCTTACACATAGAGAAACTCCAAACA 1655  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1336 GGAACCGGGTGGCTCGTTTGAAGGTTTCTTCAAGAAAGATTAGCTTCAGGAATCT 1395  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1596 CACCCAGATGGAATTTTGGAGCAATGTGTTTGGCTGGCAGCATAGGAATAG 1755  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1396 GGAACCGAAC-----TCGGTCAATCCATTTTGTCTTCGTTCCAGAAACCGTAAGTG 1449  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1756 GATTATCTATTCAGAAAAGACCTCAGACATTTCTTAAGCATGGGATCTTAATCTA 1815  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1450 GATTTCATATATGAAATGAACCTGATACACATTTGTGAATATGGCCGCTTCCGAGTT 1509  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1816 AAGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAACCCCAAGCAATATGTA 1875  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1510 GACATGGCTTCTCTCC-----GAAGCGCATCTTAAAGAAATACGTG 1551  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1876 CAAGACAACATCAGCTTCATGGCCAGAGGTGGCAGAAATCTCTCCAGAGAACGCG 1935  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1552 CAACATAAATGAGCCCAAGGCTTCGATAT---ATGGAACATGCTTTCTGAGGAGCA 1608  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1936 CATATTTATGTGTGAGATGCAAGAATATGGCCCAAGATGATGATGATGCTTGTG 1995  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1609 TACTTATACGTGTGTGATGCCAAGGATGGCTTAAAGATGATACCAACCCCTTCAC 1668  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1996 CAATTAATGACCAAGAGCTTGAGTTGAAAACATAGAGCAATGAAAACCTGGCCCT 2055  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1669 ACCATTGTGCAAGAACAGGAATTTGATTCCTTAAAGCAGAGCTGATGTAGAGAT 1728  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 2056 TTAAGAGAGAAAACGCTACCTCAGATATTTGTCAT 2095  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1729 CTACAATGTGCGGAAGATACCTCCGTATGTTGGTAT 1768  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111

## RESULT 13

US-09-134-001C-1557  
: Sequence 1557, Application US/09134001C  
: Patent No. 6380370  
: GENERAL INFORMATION:  
: APPLICANT: Lynn Doucelte-Stamm et al  
: TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS  
: FILE REFERENCE: GTC-007  
: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS  
: CURRENT APPLICATION NUMBER: US/09/134,001C  
: CURRENT FILING DATE: 1998-08-13  
: PRIOR APPLICATION NUMBER: US 60/064,964  
: PRIOR FILING DATE: 1997-11-08  
: PRIOR APPLICATION NUMBER: US 60/055,779  
: PRIOR FILING DATE: 1997-08-14  
: NUMBER OF SEQ ID NOS: 5674  
: SEQ ID NO 1557  
: LENGTH: 1890  
: TYPE: DNA  
: ORGANISM: Staphylococcus epidermidis  
US-09-134-001C-1557

Query Match 2.5%, Score 52.8; DB 4; Length 1890;  
Best Local Similarity 49.2%; Pred. NO. 1.1e-06;  
Matches 258; Conservative 0; Mismatches 227; Indels 39; Gaps 3;

QY 1554 TAAGATATCCATCTCTCCTCGAACACAAATTTCTCCATTTACAGATGACCCCTCAT 1613  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1389 TACAATTCCTATCTATTTAAACGAATCCCAATTTTAAGTTCCGCAAGATGAATCAAC 1448  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1614 CCCCATCATATATGCTGGTCCAGAACCGCATAGCCCGTTTATTTGGGTTCTACACA 1673  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1449 ACCTGTATATGATAGATGCTCGGAGACAGGTGTGACCGTTTGAATGATCTATATGCAAGA 1508  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1674 TAGAGAGAACTCCACAGAACACACCCAGATGAAATTTTGGAGCAATGTGCTGTTT 1733  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111

DB 1509 ACGAGAGAACTA-----GCTTTTGAAGAAATACATGTTATTCTT 1550  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1734 TGGCTGACGAGCATAGATAGGATTTATCTTTCAGAAAGAGCTCAGACATTTCTTAA 1793  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1551 TGGAGATCAACACTTCTACCTACAGATTTTCTGTATCAACGGAATGGCAAGATGGCTTGA 1610  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1794 GCATGGATCTTAACATCATCTAAGGTTTCTCTCTCAAGAGATCTCTCTTGGGGAGGA 1853  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1611 AGATGGAACCTTATCAAAAATAGATGTGCTTTTCTTAGANA---TACTGATAAAAAGT 1667  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1854 GGAAGCCCGACCAAGATGTACAGAACACATCCAGCTTCATGCGCAGCAGTGGCGAG 1913  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1668 GTATGTGCAACATATAATTTGTAGAAAATAGGAACAATTTAATGATGG----- 1716  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1914 AATCCTCTCCAGGAGAACGGCCATTTATGTGTGTGAGATGCAAGAAATATGCGCA 1973  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1717 -----ATTGAAATGGCGCTTACTATTTATGTATGTGTATGATATAAGTAAATGGCAAA 1769  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 1974 GGATGATCATGATGCTCTTGTGCAAAATTAATTAAGCAAGAGGTTGGAGTTGAAAACCTAGA 2033  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1770 GGATGTTTCATCAAGCATTAATAAATGTGTAAATCAAGAGCAAAACCTATCTGAACAGA 1829  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
QY 2034 AGCATTAACAAACCTGGCCACTTTAAAGAAAGAAAACGCTAAC 2077  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1830 TGCAAGAAATTAATTAATAAATGAAGAAAGATATAAGATATC 1873  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111

## RESULT 14

US-08-936-165A-113  
: Sequence 113, Application US/08936165A  
: Patent No. 6348582  
: GENERAL INFORMATION:

APPLICANT: Black, Michael  
APPLICANT: Burnham, Martin  
APPLICANT: Hodgson, John  
APPLICANT: Knowles, David  
APPLICANT: Lonetto, Michael  
APPLICANT: Nicholas, Richard  
APPLICANT: Pratt, Julie  
APPLICANT: Reichard, Richard  
APPLICANT: Rosenberg, Martin  
APPLICANT: Ward, Judith  
TITLE OF INVENTION: No. 6348582el Prokaryotic Polynucleotides,  
POLYPEPTIDES AND THEIR USES  
NUMBER OF SEQUENCES: 534  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: SmithKline Beecham Corporation  
STREET: 709 Swedeland Road  
CITY: King of Prussia  
STATE: PA  
COUNTRY: USA  
ZIP: 19406-0939  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: DOS  
SOFTWARE: FASTSEQ for Windows Version 2.0  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/936,165A  
FILING DATE: 24-SEP-1997  
CLASSIFICATION: 536  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 60/027,032  
FILING DATE: 24-SEP-1996  
ATTORNEY/AGENT INFORMATION:  
NAME: Gimm, Edward R  
REGISTRATION NUMBER: 38,891  
REFERENCE/DOCKET NUMBER: P50549  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 610-270-4478  
TELEFAX: 610-270-5090  
TELEX:  
INFORMATION FOR SEQ ID NO: 113:



[illegible]

181 GGCACGGAGACCCACCCGACACAGCCCGAAGTTTGTAAAGAAATACAGAACCAACA 240  
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241 CTGCGGGTATTTCTTGTCTCACTGCTGATGGGTTTACTGGGCTCGGTTGAA 300  
241 CTGCGGGTATTTCTTGTCTCACTGCTGATGGGTTTACTGGGCTCGGTTGAA 300  
301 TACACCTACTTTTGAATGGGGGAGATTAATGAATAACGACTTCAAGAGCTTGAAGCC 360  
301 TACACCTACTTTTGAATGGGGGAGATTAATGAATAACGACTTCAAGAGCTTGAAGCC 360  
361 CGGCATTCTATGACACTGGACATGCAATGATGCTGATGCTTGAAGCTTGTGAG 420  
361 CGGCATTCTATGACACTGGACATGCAATGATGCTGATGCTTGAAGCTTGTGAG 420  
421 CCGTGATGCTGATGCTGATGCTGATGCTGATGCTGATGCTGATGCTGATGCTGAT 480  
421 CCGTGATGCTGATGCTGATGCTGATGCTGATGCTGATGCTGATGCTGATGCTGAT 480  
481 GAGGATATGATGCTGATGCTGATGCTGATGCTGATGCTGATGCTGATGCTGATGCT 540  
481 GAGGATATGATGCTGATGCTGATGCTGATGCTGATGCTGATGCTGATGCTGATGCT 540  
541 AAGTCAGAGCTGCTACACATTTGAATCTCAAGTGCAGCTTCTGATGCTGATGCTGAT 600  
541 AAGTCAGAGCTGCTACACATTTGAATCTCAAGTGCAGCTTCTGATGCTGATGCTGAT 600  
601 AGAAGGATTTGAGGTTTGAAGCAAAATGCAAGTGCAGCAACCAATCCATGTTGA 660  
601 AGAAGGATTTGAGGTTTGAAGCAAAATGCAAGTGCAGCAACCAATCCATGTTGA 660  
661 ATTGAAGCTTTGAGGCTGCTACACTTACCGTGGGTTGCTGCTGCTGCTGCTGCTGCT 720  
661 ATTGAAGCTTTGAGGCTGCTACACTTACCGTGGGTTGCTGCTGCTGCTGCTGCTGCT 720  
721 AATATTCCTGTTTACCCCGACAAATTTACAGATGCTGCTGCTGCTGCTGCTGCTGCT 780  
721 AATATTCCTGTTTACCCCGACAAATTTACAGATGCTGCTGCTGCTGCTGCTGCTGCT 780  
781 GAGGAAAGGCAAGTATCTGTGACTTACAGAGATCCAGTTTCAAGTGCATTTCAAG 840  
781 GAGGAAAGGCAAGTATCTGTGACTTACAGAGATCCAGTTTCAAGTGCATTTCAAG 840  
841 GAGGTTCAACTTACAGAGATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 900  
841 GAGGTTCAACTTACAGAGATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 900  
901 TCAATATACAGACTTTTCTATCAGCTGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCT 960  
901 TCAATATACAGACTTTTCTATCAGCTGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCT 960  
961 GATTTGAGTACAAAGCTTCTCAAAAGACTGCAAGCTTGAAGATAAAGAGACAGCTGC 1020  
961 GATTTGAGTACAAAGCTTCTCAAAAGACTGCAAGCTTGAAGATAAAGAGACAGCTGC 1020  
1021 GTCTTTTGAATAAAGGACACACAAAGAAAGAGAGAGAGAGAGAGAGAGAGAGAGATA 1080  
1021 GTCTTTTGAATAAAGGACACACAAAGAAAGAGAGAGAGAGAGAGAGAGAGAGAGATA 1080  
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1081 CCGCGGAGATTTCTCTCAGTTCTATTTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1140  
1141 AAAAAGGATTTTGGCGAGCTTGTGAGTATACAGTACAGTACAGTACAGTACAGTACAG 1200  
1141 AAAAAGGATTTTGGCGAGCTTGTGAGTATACAGTACAGTACAGTACAGTACAGTACAG 1200  
1201 CTACAGAGGCTGCTGAGTAAACAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1260  
1201 CTACAGAGGCTGCTGAGTAAACAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1260

1261 TGTCCTGCTGTTGGATGCTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1320  
1261 TGTCCTGCTGTTGGATGCTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1320  
1321 CTGCTGACATCTTCTTAACTTCAACCCAGACATATTCGCTGCAAGCTCAAGTTTA 1380  
1321 CTGCTGACATCTTCTTAACTTCAACCCAGACATATTCGCTGCAAGCTCAAGTTTA 1380  
1381 TTTCACCCAGGAAGCTCCATTTTGTCTTCAATGATGATGATGATGATGATGATGATGAT 1440  
1381 TTTCACCCAGGAAGCTCCATTTTGTCTTCAATGATGATGATGATGATGATGATGATGAT 1440  
1441 ACAGAGGCTTGGGAGGAGGAGTATGACAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1500  
1441 ACAGAGGCTTGGGAGGAGGAGTATGACAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1500  
1501 CTTGACGCAACATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1560  
1501 CTTGACGCAACATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1560  
1561 TCCATCTCTCTGCAACACAAATTTCTTCCATTTACAGATGATGATGATGATGATGATGAT 1620  
1561 TCCATCTCTCTGCAACACAAATTTCTTCCATTTACAGATGATGATGATGATGATGATGAT 1620  
1621 ATATGCTGCTGCTGCAACACAAATTTCTTCCATTTACAGATGATGATGATGATGATGAT 1680  
1621 ATATGCTGCTGCTGCAACACAAATTTCTTCCATTTACAGATGATGATGATGATGATGAT 1680  
1681 AATCTGCAAGACACACACCAAGTGAATTTGGAGCAATGCTGCTGCTGCTGCTGCTGCTGCT 1740  
1681 AATCTGCAAGACACACACCAAGTGAATTTGGAGCAATGCTGCTGCTGCTGCTGCTGCTGCT 1740  
1741 AGGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1800  
1741 AGGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1800  
1801 ATCTTACATCTTAAAGTTTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1860  
1801 ATCTTACATCTTAAAGTTTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1860  
1861 CCAGCAAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1920  
1861 CCAGCAAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1920  
1921 CTCAGAGAGAGGAGGATTTATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1980  
1921 CTCAGAGAGAGGAGGATTTATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1980  
1981 CATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2040  
1981 CATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2040  
2041 AAAACCTGCGCCTTTTAAAGAGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2097  
2041 AAAACCTGCGCCTTTTAAAGAGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2097

RESULT 2  
US-09-371-347-1  
; Sequence 1, Application US/09371347  
; Publication No. US20030082676A1  
GENERAL INFORMATION:  
APPLICANT: Roy A. Gravel et al.  
TITLE OF INVENTION: HUMAN METHYLONLINE SYNTHASE REDUCTASE;  
TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
TITLE OF INVENTION: DEFECTS CARDIOVASCULAR DISEASE, AND CANCER  
FILE REFERENCE: 50004/003003  
CURRENT APPLICATION NUMBER: US/09/371, 347  
CURRENT FILING DATE: 1999-08-10  
PRIOR APPLICATION NUMBER: 60/071,622  
PRIOR FILING DATE: 1998-01-16  
PRIOR APPLICATION NUMBER: 09/232,028  
PRIOR FILING DATE: 1999-01-15





Db 1981 CATGATGCCCTTGCGAAATATAGCAAGAGTTGAGTGTGAAAACTAGAGCAATG 2040  
QY 2041 AAAACCTGGCCACTTTAAAGAAAGAAAAAGCTACCTTACGATATTTGGTATTA 2097  
Db 2041 AAAACCTGGCCACTTTAAAGAAAGAAAAAGCTACCTTACGATATTTGGTATTA 2097

RESULT 3  
US-09-371-347-24  
; Sequence 24, Application US/09371347  
; Publication No. US20030082676A1  
; GENERAL INFORMATION:  
; APPLICANT: Roy A. Gravel et al.  
; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE;  
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
; FILE REFERENCE: 50004/003003  
; CURRENT APPLICATION NUMBER: US/09/371,347  
; CURRENT FILING DATE: 1999-08-10  
; PRIOR APPLICATION NUMBER: 60/071,622  
; PRIOR FILING DATE: 1998-01-16  
; PRIOR APPLICATION NUMBER: 09/232,028  
; PRIOR FILING DATE: 1999-01-15  
; NUMBER OF SEQ ID NOS: 51  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 24  
; LENGTH: 3259  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-371-347-24

Query Match 99.9%; Score 2095.4; DB 12; Length 3259;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2096; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGAGAGGTTCTCTTACTATATCTACACAGCAGGAGCAAGGCCATCCGAGAA 60  
Db 80 ATGAGAGGTTCTCTTACTATATCTACACAGCAGGAGCAAGGCCATCCGAGAA 139  
QY 61 GAAATGTGAGCAGCAGTGTGTACATGATTTTGTGAGATCTTACATATTTGTGAA 120  
Db 140 GAAATGTGTGACCAAGCTGTGTACATGATTTTGTGAGATCTTACATATTTGTGAA 199  
QY 121 TCCGATTAAGTATGACCTAAAAACCGAACAGCTCCTTGTGTGTGTTCTTCAACAG 180  
Db 200 TCCGATTAAGTATGACCTAAAAACCGAACAGCTCCTTGTGTGTGTTCTTCAACAG 259  
QY 181 GGCACCGGAGACCCACCGGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240  
Db 260 GGCACCGGAGACCCACCGGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 319  
QY 241 CTGCGGTTGATTTCTTGTCTCACTGTGGGTATGGGTACTGGGTCTGGTATTCAGAA 300  
Db 320 CTGCGGTTGATTTCTTGTCTCACTGTGGGTATGGGTACTGGGTCTGGTATTCAGAA 379  
QY 301 TACACCTACTTTTGCATGAGGGGGAGATTAATTGATAACGACTTCAAGAGCTTGGAGCC 360  
Db 380 TACACCTACTTTTGCATGAGGGGGAGATTAATTGATAACGACTTCAAGAGCTTGGAGCC 439  
QY 361 CGGATTTCTATGACACTGACATGACAGATGACTGTGAGTTTGAAGACTTGTGGTTAG 420  
Db 440 CGGATTTCTATGACACTGACATGACAGATGACTGTGAGTTTGAAGACTTGTGGTTAG 499  
QY 421 CCGTGATTTGCTGACTCTGGCCAGCCCTCAGAAAGCAATTTAGTCAAGCAGAGACAA 480  
Db 500 CCGTGATTTGCTGACTCTGGCCAGCCCTCAGAAAGCAATTTAGTCAAGCAGAGACAA 559  
QY 481 GAGAGATTAAGTGGCAGCTCCCGGTGGCATCCTGCATCCTTGAGAGACAGACTTGTG 540  
Db 560 GAGAGATTAAGTGGCAGCTCCCGGTGGCATCCTGCATCCTTGAGAGACAGACTTGTG 619  
QY 541 AAGTCAGAGCTGTACACATTTGAATCTCAAGTCTGAGATTGATTCGATTCAGAGA 600

Db 620 AAGTCAGAGCTGTACACATTTGAATCTCAAGTCTGAGACTTCTGATTCGATTCAGAGA 679  
QY 601 AGAAGATTTCTGAGTTTGAAGCAAAATGACAGTAAAGCAACCAATCAATGTTGTA 660  
Db 680 AGAAGATTTCTGAGTTTGAAGCAAAATGACAGTAAAGCAACCAATCAATGTTGTA 739  
QY 661 ATTGAAGACTTTGAGTCTCCTACTTACCCGTGGGTACCCCACTCTCACAAGCCTCTG 720  
Db 740 ATTGAAGACTTTGAGTCTCCTACTTACCCGTGGGTACCCCACTCTCACAAGCCTCTG 799  
QY 721 AATATCTGTTTACCCCAAGATTAATTACAGTACATCTGAGAGATCTCTGGCCAG 780  
Db 800 AATATCTGTTTACCCCAAGATTAATTACAGTACATCTGAGAGATCTCTGGCCAG 859  
QY 781 GAGGAAGCCAGATCTGTGACTTACGAGATTCAGTCTTCAAGTGGCAATTTCAAG 840  
Db 860 GAGGAAGCCAGATCTGTGACTTACGAGATTCAGTCTTCAAGTGGCAATTTCAAG 919  
QY 841 GCAGTTCAACTTACTGCAATGATGCGCATTAACCACTCTGCTGTAGAAATTTGACAT 900  
Db 920 GCAGTTCAACTTACTGCAATGATGCGCATTAACCACTCTGCTGTAGAAATTTGACAT 979  
QY 901 TCAATATGACACTTTTCCATCAGCTGAGATGCTTACGCTGATCTGCCCTAACAGT 960  
Db 980 TCAATATGACACTTTTCCATCAGCTGAGATGCTTACGCTGATCTGCCCTAACAGT 1039  
QY 961 GATTCGAGTACAAAGCCTTACTCCAAAGACTGCAAGCTTGAAGATTAAGAGAGCACTGC 1020  
Db 1040 GATTCGAGTACAAAGCCTTACTCCAAAGACTGCAAGCTTGAAGATTAAGAGAGCACTGC 1099  
QY 1021 GTTCCTTTGAAAATTAAGGCGACACAAAGAAAGAGAGCTTACCTTACCCAGCATATA 1080  
Db 1100 GTTCCTTTGAAAATTAAGGCGACACAAAGAAAGAGAGCTTACCTTACCCAGCATATA 1159  
QY 1081 CCTGGGGATGTTCTCTCAGTTCATTTTACCCTGTGCTTGAATCCGAGCAATTTCT 1140  
Db 1160 CCTGGGGATGTTCTCTCAGTTCATTTTACCCTGTGCTTGAATCCGAGCAATTTCT 1219  
QY 1141 AAAAAGCAATTTTTCGAGCCCTTGTGACTATACAGTACAGTGTGAAAAGGCGAGG 1200  
Db 1220 AAAAAGCAATTTTTCGAGCCCTTGTGACTATACAGTACAGTGTGAAAAGGCGAGG 1279  
QY 1201 CTACAGAGCTGTGCAATTAACAGGGGCGAGCGATTAATAGCCGTTTGTACGAGATGCC 1260  
Db 1280 CTACAGAGCTGTGCAATTAACAGGGGCGAGCGATTAATAGCCGTTTGTACGAGATGCC 1339  
QY 1261 TGTGCTCTGTTGATCTCTCCTGCTTCCCTTCTTCCGAGCCCACTCAGTCTC 1320  
Db 1340 TGTGCTCTGTTGATCTCTCCTGCTTCCCTTCTTCCGAGCCCACTCAGTCTC 1399  
QY 1321 CTGCTCGAACAATCTTCTTAACTTCAACCCAGACCATATTTGCTGCAAGCTCAAGTTTA 1380  
Db 1400 CTGCTCGAACAATCTTCTTAACTTCAACCCAGACCATATTTGCTGCAAGCTCAAGTTTA 1459  
QY 1381 TTTTCAACCAGAAAGCTCCATTTTGTCTTCAACATTTGGAATTTGTCTACTGCCACA 1440  
Db 1460 TTTTCAACCAGAAAGCTCCATTTTGTCTTCAACATTTGGAATTTGTCTACTGCCACA 1519  
QY 1441 ACAGAGTTCTGCGGAAGGAGTATGTACAGGCTGGGCTGGCTGTGTTGCTTCACTT 1500  
Db 1520 ACAGAGTTCTGCGGAAGGAGTATGTACAGGCTGGGCTGGCTGTGTTGCTTCACTT 1579  
QY 1501 CTTCAGCCAAACATACATGATCTCCATGAGACAGCGGAAAGCCCTGCTCTTAAGATA 1560  
Db 1580 CTTCAGCCAAACATACATGATCTCCATGAGACAGCGGAAAGCCCTGCTCTTAAGATA 1639  
QY 1561 TCCATCTCTCTGCAACAACAATTTCTTCACTTACCAAGATGACCCCTCAATCCCATC 1620  
Db 1640 TCCATCTCTCTGCAACAACAATTTCTTCACTTACCAAGATGACCCCTCAATCCCATC 1699  
QY 1621 AATATGTTGGTCTCAGGACCGGATAGCCCGTTTATTTGGTCTCTTCAACAATAGAGAG 1680  
Db 1700 AATATGTTGGTCTCAGGACCGGATAGCCCGTTTATTTGGTCTCTTCAACAATAGAGAG 1759





```

QY 1321 CTGCTCGACATCTTCTTAACCTCAACCCAGACCATTATGCTGCAAGCTCAAGTTA 1380
    |||||||
Db 1321 CTGCTCGACATCTTCTTAACCTCAACCCAGACCATTATGCTGCAAGCTCAAGTTA 1380
QY 1381 TTTTACCAGGAAGCTCCATTGTTGCTTCAACATTTGTGGAATTTGTCTACTGCCACA 1440
    |||||||
Db 1381 TTTTACCAGGAAGCTCCATTGTTGCTTCAACATTTGTGGAATTTGTCTACTGCCACA 1440
QY 1441 ACAGAGGTTCTGCGAAGGGAGTATGTACAGGCTGGGCGCTTGTGGTGGCTTCAAGT 1500
    |||||||
Db 1441 ACAGAGGTTCTGCGAAGGGAGTATGTACAGGCTGGGCGCTTGTGGTGGCTTCAAGT 1500
QY 1501 CTTCAGCCAAACATACATGATGCCATGTAAGACAGCGGGAAGCCCTGGCTCTCAAGATA 1560
    |||||||
Db 1501 CTTCAGCCAAACATACATGATGCCATGTAAGACAGCGGGAAGCCCTGGCTCTCAAGATA 1560
QY 1561 TCCATCTCTCTCGAACAACAATTTCTTCCACTTACAGATGACCCCTCAATCCCATC 1620
    |||||||
Db 1561 TCCATCTCTCTCGAACAACAATTTCTTCCACTTACAGATGACCCCTCAATCCCATC 1620
QY 1621 ATATGCTGGGTCAGGAACCGGATAGCCCGTTTATGCTTCTACACATAGAGAG 1680
    |||||||
Db 1621 ATATGCTGGGTCAGGAACCGGATAGCCCGTTTATGCTTCTACACATAGAGAG 1680
QY 1681 AAATCCAGAACACACCCAGATGGAATTTTGGAGCAATGTGTTTGTGGCTGC 1740
    |||||||
Db 1681 AAATCCAGAACACACCCAGATGGAATTTTGGAGCAATGTGTTTGTGGCTGC 1740
QY 1741 AGGATTAAGATAGGAGTATCTATTCAGAAAAGAGCTCAGACATTTCTTAACATGCG 1800
    |||||||
Db 1741 AGGATTAAGATAGGAGTATCTATTCAGAAAAGAGCTCAGACATTTCTTAACATGCG 1800
QY 1801 ATCTTAATCTATTAAGGTTTCTTCTCAAGAGATGCTCTGTGGGAGAGAGAACCC 1860
    |||||||
Db 1801 ATCTTAATCTATTAAGGTTTCTTCTCAAGAGATGCTCTGTGGGAGAGAGAACCC 1860
QY 1861 CCACCAAAAGTATGACAAAGACACATCCAGCTTCATGGCCAGAGGTGGCAGATCTC 1920
    |||||||
Db 1861 CCACCAAAAGTATGACAAAGACACATCCAGCTTCATGGCCAGAGGTGGCAGATCTC 1920
QY 1921 CTCGAGAGAAAGGCGCATATTTATGTGTGTGAGATGCAAGATATGCGCCAAAGATGTA 1980
    |||||||
Db 1921 CTCGAGAGAAAGGCGCATATTTATGTGTGTGAGATGCAAGATATGCGCCAAAGATGTA 1980
QY 1981 CATGATCCCTTGTGCAAAATATATAGCAAAAGAGGTGAGTTGAAAACTGAAGCAATG 2040
    |||||||
Db 1981 CATGATCCCTTGTGCAAAATATATAGCAAAAGAGGTGAGTTGAAAACTGAAGCAATG 2040
QY 2041 AAAACCTGGCCACTTTAAAAAGAAAAACGCTACCTTCAGATATTTGGTCAATA 2097
    |||||||
Db 2041 AAAACCTGGCCACTTTAAAAAGAAAAACGCTACCTTCAGATATTTGGTCAATA 2097

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: TYPE: DNA
: ORGANISM: Homo sapiens
US-09-371-347-45
Query Match 99.2%; Score 2079.4; DB 12; Length 2094;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 2093; Conservative 0; Mismatches 1; Indels 3; Gaps 1;

QY 1 ATGAGGAGGTTCTGTTACTATATGCTACACAGCAGGACGACGGAAGGCCATGCGCAGAA 60
    |||||||
Db 1 ATGAGGAGGTTCTGTTACTATATGCTACACAGCAGGACGACGGAAGGCCATGCGCAGAA 60
QY 61 GAAATGTGTGAGCAGAGCTGTGATGATGATTTCTGAGATCTTCAATATATTAGGAA 120
    |||||||
Db 61 GAAATGTGTGAGCAGAGCTGTGATGATGATTTCTGAGATCTTCAATATATTAGGAA 120
QY 121 TCCGATTAAGTATGACCTTAATAAACGGAACAGCTCTTGTGTTGTGTTTCAACAG 180
    |||||||
Db 121 TCCGATTAAGTATGACCTTAATAAACGGAACAGCTCTTGTGTTGTGTTTCAACAG 180
QY 181 GGCACCGGAGACCCGACCCGACAGCCCGCAAGTTTGTAAAGAAATACAAACCAACA 240
    |||||||
Db 181 GGCACCGGAGACCCGACCCGACAGCCCGCAAGTTTGTAAAGAAATACAAACCAACA 240
QY 241 CTGCGCGTGAFTTCTTGTCTCACCTGGATGAGGTTACTGCGGTCTCGATTCAGAA 300
    |||||||
Db 241 CTGCGCGTGAFTTCTTGTCTCACCTGGATGAGGTTACTGCGGTCTCGATTCAGAA 300
QY 301 TACACCTACTTTTGCATGAGGGGGAAGATTAATGATTAACGACTTCAAGAGCTTGAAGCC 360
    |||||||
Db 301 TACACCTACTTTTGCATGAGGGGGAAGATTAATGATTAACGACTTCAAGAGCTTGAAGCC 360
QY 361 CGGATTTCTATGACACTGACGACATGACATGCTGTAGGTTTGAAGAACTGTGCTGAG 420
    |||||||
Db 361 CGGATTTCTATGACACTGACGACATGACATGCTGTAGGTTTGAAGAACTGTGCTGAG 420
QY 421 CCGTGATTTGCTGACTCTGCGCAGCCCTCGAAGAGCAATTTAGTCAAGCAGAGCAAA 480
    |||||||
Db 421 CCGTGATTTGCTGACTCTGCGCAGCCCTCGAAGAGCAATTTAGTCAAGCAGAGCAAA 480
QY 481 GAGAGATTAAGTGGCGCACTCCCGGTGGCATCTGATCTGTTGAGAGACAGACTTGTG 540
    |||||||
Db 481 GAGAGATTAAGTGGCGCACTCCCGGTGGCATCTGATCTGTTGAGAGACAGACTTGTG 540
QY 541 AAGTCAGAGCTGCTACACATTAATTCATGACGCTTCTGAGATTCGATTCAGAA 600
    |||||||
Db 541 AAGTCAGAGCTGCTACACATTAATTCATGACGCTTCTGAGATTCGATTCAGAA 600
QY 601 AGAAAGATTTCTGAGTTTGAAGCAAAATGCAAGCAAGCAATCAATGTTGTA 660
    |||||||
Db 601 AGAAAGATTTCTGAGTTTGAAGCAAAATGCAAGCAAGCAATCAATGTTGTA 660
QY 661 ATGGAAGCTTTGAGTCTCTACCTACCGCTGGGTACCCGACATCTGCAAGAGCTCTCTG 720
    |||||||
Db 661 ATGGAAGCTTTGAGTCTCTACCTACCGCTGGGTACCCGACATCTGCAAGAGCTCTCTG 720
QY 721 AATATTCCTGTTTACCCCGAGATATTTACAGGTACATCTGACAGATCTCTTGGCCAG 780
    |||||||
Db 721 AATATTCCTGTTTACCCCGAGATATTTACAGGTACATCTGACAGATCTCTTGGCCAG 780
QY 781 GAGGAAGCCAAATGATGTGACTTACAGCAGATCCAGTTTTCAGAGTCCCAATTTCAAG 840
    |||||||
Db 781 GAGGAAGCCAAATGATGTGACTTACAGCAGATCCAGTTTTCAGAGTCCCAATTTCAAG 840
QY 841 GCAATTAACCTTACTACGAATGATGCATTAATAAACCACTGCTGCTGATGAAATTTGACATT 900
    |||||||
Db 841 GCAATTAACCTTACTACGAATGATGCATTAATAAACCACTGCTGCTGATGAAATTTGACATT 900
QY 901 TCAATATCAGACTTTTCTATACGCTGGAGATCTTCAAGCGGATCTGCGCTAACAGT 960
    |||||||
Db 901 TCAATATCAGACTTTTCTATACGCTGGAGATCTTCAAGCGGATCTGCGCTAACAGT 960
QY 961 GATTCTGAGGTACAAAGCCTACTCCAAAGACTGACGCTTGAAGATTAAGAGAGACTGCG 1020
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RESULT 5
US-09-371-347-45
: Sequence 45, Application US/09371347
: Publication No. US20030082676A1
: GENERAL INFORMATION:
: APPLICANT: Roy A. Gravel et al.
: TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:
: TITLE OF INVENTION: CLOTHING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE
: FILE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER
: FILE REFERENCE: 50004/003003
: CURRENT APPLICATION NUMBER: US/09/371.347
: PRIOR FILING DATE: 1999-08-10
: PRIOR APPLICATION NUMBER: 60/071,622
: PRIOR FILING DATE: 1998-01-16
: PRIOR APPLICATION NUMBER: 09/232,028
: NUMBER OF SEQ ID NOS: 51
: SOFTWARE: FastSeq for Windows Version 4.0
: SEQ ID NO 45
: LENGTH: 2094

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Db 961 GATTCTAGGTACAAAGCTACTCTCAAGAGCTGACGCTTGAAGATTAAGAGAGACACTGC 1020  
Oy 1021 GTCTTTTGAATAAAGGACGACACAAAGAGAGAGAGTACTTACATCCACCATATA 1080  
Db 1021 GTCTTTTGAATAAAGGACGACACAAAGAGAGAGTACTTACATCCACCATATA 1080  
Oy 1081 CCTCGGGAGTCTCTCCAGTTCATTTTACCTGTGTCTTGAATCCGAGCAATTCCT 1140  
Db 1081 CCTCGGGAGTCTCTCCAGTTCATTTTACCTGTGTCTTGAATCCGAGCAATTCCT 1140  
Oy 1141 AAAAGGATTTTGGAGCCCTTGTGACTATACAGTGACAGTGTGAAAAGCGCAGG 1200  
Db 1141 AAAAGGATTTTGGAGCCCTTGTGACTATACAGTGACAGTGTGAAAAGCGCAGG 1200  
Oy 1201 CTACAGAGGCTGCTAAACAGAGGGGACCGCATATAGCCCTTGTGAGATGCC 1260  
Db 1201 CTACAGAGGCTGCTAAACAGAGGGGACCGCATATAGCCCTTGTGAGATGCC 1260  
Oy 1261 TGTGCTGCTTGTGATCTCTCCCTGCTTCCCTTCTTCCAGCCACCACTGCTC 1320  
Db 1261 TGTGCTGCTTGTGATCTCTCCCTGCTTCCCTTCTTCCAGCCACCACTGCTC 1320  
Oy 1321 CTGCTGCAACATCTTCTTAACTTCAACCCAGACCATATTCGTGCAAGCTTGA 1380  
Db 1321 CTGCTGCAACATCTTCTTAACTTCAACCCAGACCATATTCGTGCAAGCTTGA 1380  
Oy 1381 TTTTACCAGAAAGCTCCATTTGTCTTCAACATTTGTGGAATTTGTCTACGCCACA 1440  
Db 1381 TTTTACCAGAAAGCTCCATTTGTCTTCAACATTTGTGGAATTTGTCTACGCCACA 1440  
Oy 1441 ACAGAGGTTCTGCGAAGGAGATGATACAGGCTGCGCTTGTGCTTCAAGTT 1500  
Db 1441 ACAGAGGTTCTGCGAAGGAGATGATACAGGCTGCGCTTGTGCTTCAAGTT 1500  
Oy 1501 CTTCAGCCAAACATATGTCATGTCATGAGACAGCGGGAAGCCCTGCTCTCAAGTA 1560  
Db 1501 CTTCAGCCAAACATATGTCATGTCATGAGACAGCGGGAAGCCCTGCTCTCAAGTA 1560  
Oy 1561 TCCATCTCTCCTGCAACAAATTTCTTCCACTTACAGATGACCCCTCATCCCATC 1620  
Db 1561 TCCATCTCTCCTGCAACAAATTTCTTCCACTTACAGATGACCCCTCATCCCATC 1620  
Oy 1621 ATAAATGTTGGTCCAGAACCGGATAGCCCTTATTTGGTCTCTACACATAGAGAG 1680  
Db 1621 ATAAATGTTGGTCCAGAACCGGATAGCCCTTATTTGGTCTCTACACATAGAGAG 1680  
Oy 1681 AAATCTCAAGAACACACCCAGATGGAATTTTGGAGCAATGTG--GTTTGGCTGC 1740  
Db 1681 AAATCTCAAGAACACACCCAGATGGAATTTTGGAGCAATGTG--GTTTGGCTGC 1740  
Oy 1741 AGGATAGAGATAGGATTTATCTATTCAGAAAAGGCTCAGACATTTCTTAACATGCG 1800  
Db 1741 AGGATAGAGATAGGATTTATCTATTCAGAAAAGGCTCAGACATTTCTTAACATGCG 1800  
Oy 1738 AGGATAGAGATAGGATTTATCTATTCAGAAAAGGCTCAGACATTTCTTAACATGCG 1797  
Db 1738 AGGATAGAGATAGGATTTATCTATTCAGAAAAGGCTCAGACATTTCTTAACATGCG 1797  
Oy 1801 ATCTTAATCTATCTAAAGGTTTCTCTCAAGAGATGCTCTGTTGGGAGAGAAAGCC 1860  
Db 1801 ATCTTAATCTATCTAAAGGTTTCTCTCAAGAGATGCTCTGTTGGGAGAGAAAGCC 1860  
Oy 1861 CCAGCAAAAGTATGACAAAGACATCCAGCTTATGAGCCAGAGTGGGAGAAATCTCTC 1920  
Db 1861 CCAGCAAAAGTATGACAAAGACATCCAGCTTATGAGCCAGAGTGGGAGAAATCTCTC 1920  
Oy 1921 CTTCAGAGAAAGGCTCATTTATGTTGTGAGATGCAAAAGATATGAGCCAAAGATGTA 1980  
Db 1921 CTTCAGAGAAAGGCTCATTTATGTTGTGAGATGCAAAAGATATGAGCCAAAGATGTA 1980  
Oy 1918 CTTCAGAGAAAGGCTCATTTATGTTGTGAGATGCAAAAGATATGAGCCAAAGATGTA 1977  
Db 1918 CTTCAGAGAAAGGCTCATTTATGTTGTGAGATGCAAAAGATATGAGCCAAAGATGTA 1977  
Oy 1981 CATGATGCCCTTGTGCAAAATATAGCAAAAGGTTGAGATTTGAAAACTAGAGCAATG 2040  
Db 1981 CATGATGCCCTTGTGCAAAATATAGCAAAAGGTTGAGATTTGAAAACTAGAGCAATG 2040  
Oy 2041 AAAACCTGGCCATTTAAAAAGAAAAAGCGTACCTTCAGATATTTGGTCAATA 2097  
Db 2041 AAAACCTGGCCATTTAAAAAGAAAAAGCGTACCTTCAGATATTTGGTCAATA 2097

Db 2038 AAAACCTGGCCATTTAAAAAGAAAAAGCGTACCTTCAGATATTTGGTCAATA 2094  
RESULT 6  
US-09-371-347-47  
; Sequence 47, Application US/09371347  
; Publication No. US2003082676A1  
; GENERAL INFORMATION:  
; APPLICANT: Roy A. Gravel et al.  
; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE;  
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
; FILE, REFERENCE: 5004/003003  
; CURRENT APPLICATION NUMBER: US/09/371,347  
; CURRENT FILING DATE: 1999-08-10  
; PRIOR APPLICATION NUMBER: 60/071,622  
; PRIOR FILING DATE: 1998-01-16  
; PRIOR APPLICATION NUMBER: 09/232,028  
; PRIOR FILING DATE: 1999-01-15  
; NUMBER OF SEQ ID NOS: 51  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 47  
; LENGTH: 2093  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-371-347-47  
Query Match 99.1%; Score 2077.4; DB 12; Length 2093;  
Best Local Similarity 99.8%; Pred. No. 0;  
Matches 2092; Conservative 0; Mismatches 1; Indels 4; Gaps 1;  
Oy 1 ATGAGAGAGTTCTGTTACTATATGCTACACAGCAGGACGGAAGGCCATGCGAGAA 60  
Db 1 ATGAGAGAGTTCTGTTACTATATGCTACACAGCAGGACGGAAGGCCATGCGAGAA 60  
Oy 61 GAAATGTGTGAGCAAGCTGTGATACATGATTTTCTGCAATCTTCACTATATTAGTGA 120  
Db 61 GAAATGTGTGAGCAAGCTGTGATACATGATTTTCTGCAATCTTCACTATATTAGTGA 120  
Oy 121 TCCGATAGATATGACCTTAAACCCGAACACCTCTCTGTTGTTGGTTTCTACACAG 180  
Db 121 TCCGATAGATATGACCTTAAACCCGAACACCTCTCTGTTGTTGGTTTCTACACAG 180  
Oy 181 GGCACCGGAGACCCACCCGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240  
Db 181 GGCACCGGAGACCCACCCGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240  
Oy 241 CTGCCGGTTGATTTCTTGTCTACCTGCGGTATGGGTTACTGGGTCTCGATTCAGAA 300  
Db 241 CTGCCGGTTGATTTCTTGTCTACCTGCGGTATGGGTTACTGGGTCTCGATTCAGAA 300  
Oy 301 TACACCTACTTTTGCATGAGGGGGGAGATTAATGATTAACAGACTTCAAGACTTGGAGC 360  
Db 301 TACACCTACTTTTGCATGAGGGGGGAGATTAATGATTAACAGACTTCAAGACTTGGAGC 360  
Oy 361 CGGATTTCTATGACACTGACATGACATGACTGTGAGGTTTGAAGACTTGTGTTGAG 420  
Db 361 CGGATTTCTATGACACTGACATGACATGACTGTGAGGTTTGAAGACTTGTGTTGAG 420  
Oy 421 CCGTGATTTGCTGACTCTGACGACCCCTCAGAAAGCAATTTTAAAGTCAAGAGAGACAA 480  
Db 421 CCGTGATTTGCTGACTCTGACGACCCCTCAGAAAGCAATTTTAAAGTCAAGAGAGACAA 480  
Oy 481 GAGAGATTAATGAGGCGACCTCCCGGTGGCATCAGCTTCTGAGAGACAGACTTGTG 540  
Db 481 GAGAGATTAATGAGGCGACCTCCCGGTGGCATCAGCTTCTGAGAGACAGACTTGTG 540  
Oy 541 AAGTCAGAGCTGTACACATTAATTCATGAGCTTCTGAGATTTGATGATTTTCAGGA 600  
Db 541 AAGTCAGAGCTGTACACATTAATTCATGAGCTTCTGAGATTTGATGATTTTCAGGA 600  
Oy 601 AGAAAGATTTCTGAGGTTTGAAGCAAAATCAGTGAACAGCAACCAATGTTGTA 660  
Db 601 AGAAAGATTTCTGAGGTTTGAAGCAAAATCAGTGAACAGCAACCAATGTTGTA 660

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Db 601 AGAAGAGTTCGAGGTTTGAAGCAAAATGCAGTGAACACCAACCAATCCAAATGTTGTA 660
Oy 661 ATGAGAGCTTGGAGTCCCTACCTTACCCTGGAGTACCCTCCACTCTCCAGACCCCTCTG 720
Db 661 ATGAGAGCTTGGAGTCCCTACCTTACCCTGGAGTACCCTCCACTCTCCAGACCCCTCTG 720
Oy 721 AATATTCCTGTTTACCCTCAGAAATATTACAGTACATCTGACAGAGTCTCTGGCCAG 780
Db 721 AATATTCCTGTTTACCCTCAGAAATATTACAGTACATCTGACAGAGTCTCTGGCCAG 780
Oy 781 GAGAGAGCCCAAGATCTGTGATCTTCCAGATCCAGTCTTTCAGAGTCCCAATTTCAAG 840
Db 781 GAGAGAGCCCAAGATCTGTGATCTTCCAGATCCAGTCTTTCAGAGTCCCAATTTCAAG 840
Oy 841 GCAGTTCACCTTACTAGCAATGATGCCATTAACCACTCTGCTGTGAATTTGACAT 900
Db 841 GCAGTTCACCTTACTAGCAATGATGCCATTAACCACTCTGCTGTGAATTTGACAT 900
Oy 901 TCAATACAGACTTTTCTATCAGCTGGAGATGCTTACGCTGATCTGCCCTAACAT 960
Db 901 TCAATACAGACTTTTCTATCAGCTGGAGATGCTTACGCTGATCTGCCCTAACAT 960
Oy 961 GATTCGAGTACAAAGCTCTCCAAAGACTGCAGCTTGAAGATTAAGAGACATGTC 1020
Db 961 GATTCGAGTACAAAGCTCTCCAAAGACTGCAGCTTGAAGATTAAGAGACATGTC 1020
Oy 1021 GTCCCTTTGAATAAAGGACAGACAAAGAAAGAGCTTACCTTACCAGCATTA 1080
Db 1021 GTCCCTTTGAATAAAGGACAGACAAAGAAAGAGCTTACCTTACCAGCATTA 1080
Oy 1081 CCTCGGGAGTCTCTCCAGTCAATTTTACCTGTGTCTTGAATTCGAGCAATTCCT 1140
Db 1081 CCTCGGGAGTCTCTCCAGTCAATTTTACCTGTGTCTTGAATTCGAGCAATTCCT 1140
Oy 1141 AAAAGGATTTTGGCGACCTGTGAGTATACAGTGCAGTGCAGGAAAGCGCAGG 1200
Db 1141 AAAAGGATTTTGGCGACCTGTGAGTATACAGTGCAGTGCAGGAAAGCGCAGG 1200
Oy 1201 CTACAGAGAGTGTGCAGTAAACAAAGGGGACCGCATTAATAGCCCTTGTACGAGATGCC 1260
Db 1201 CTACAGAGAGTGTGCAGTAAACAAAGGGGACCGCATTAATAGCCCTTGTACGAGATGCC 1260
Oy 1261 TGTCCTGCTTGTGATCTCTCTGCTTCCCTTCTTCCAGCCACCACTAGTCTC 1320
Db 1261 TGTCCTGCTTGTGATCTCTCTGCTTCCCTTCTTCCAGCCACCACTAGTCTC 1320
Oy 1321 CTGCTCGACATCTTCTAAACCTCAACCCAGACCATATTCGTGACAGTCAAGTTA 1380
Db 1321 CTGCTCGACATCTTCTAAACCTCAACCCAGACCATATTCGTGACAGTCAAGTTA 1380
Oy 1381 TTTCACCCAGGAAAGCTCATTTTGTCTTCAACATTTGTGAATTTGTCTACTAGCCACA 1440
Db 1381 TTTCACCCAGGAAAGCTCATTTTGTCTTCAACATTTGTGAATTTGTCTACTAGCCACA 1440
Oy 1441 ACAGAGTTCGCGGAAGGAGTATGTACAGGCTGCGCTGCTGTTGTTGCTTCAGTT 1500
Db 1441 ACAGAGTTCGCGGAAGGAGTATGTACAGGCTGCGCTGCTGTTGTTGCTTCAGTT 1500
Oy 1501 CTTGAGCCAAACATACATGATCCCATGAAGACAGCGGAAAGCCCTGCTCCCTAAAGATA 1560
Db 1501 CTTGAGCCAAACATACATGATCCCATGAAGACAGCGGAAAGCCCTGCTCCCTAAAGATA 1560
Oy 1561 TCCATCTCTCTCGAACACAAATTTTCCACTTACAGATGACCCCTCATGCCATC 1620
Db 1561 TCCATCTCTCTCGAACACAAATTTTCCACTTACAGATGACCCCTCATGCCATC 1620
Oy 1621 ATATATGTTGGTCCAGAGACCGGATAGCCCTTATTTGGGTTCTCAACAT ---AG 1676
Db 1621 ATATATGTTGGTCCAGAGACCGGATAGCCCTTATTTGGGTTCTCAACAT ---AG 1676
Oy 1681 AAACTCCAGAGAACACCCAGATGGAATTTTGGACCATGTGTTTGGCTGC 1740
Db 1681 AAACTCCAGAGAACACCCAGATGGAATTTTGGACCATGTGTTTGGCTGC 1740
Oy 1677 AAACTCCAGAGAACACCCAGATGGAATTTTGGACCATGTGTTTGGCTGC 1736

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Oy 1741 AGCATAGAGATPAGGATTTATCTATTGAGAAAGAGCTCAGACATTTCTTACATGGG 1800
Db 1737 AGCATAGAGATPAGGATTTATCTATTGAGAAAGAGCTCAGACATTTCTTACATGGG 1796
Oy 1801 ATCTTAATCATCTAAAGGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAAAGCC 1860
Db 1797 ATCTTAATCATCTAAAGGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGAAAGCC 1856
Oy 1861 CCAGCAAGTATGTACAGAACATATCAGCTTATGAGCCAGCAGGTTGGCAGATCTC 1920
Db 1857 CCAGCAAGTATGTACAGAACATATCAGCTTATGAGCCAGCAGGTTGGCAGATCTC 1916
Oy 1921 CTCAGAGAGAGGCGCATATTATGTGTGTGAGATGCAAGATPAGGCAAGATGTA 1980
Db 1917 CTCAGAGAGAGGCGCATATTATGTGTGTGAGATGCAAGATPAGGCAAGATGTA 1976
Oy 1981 CATGATGCCCTTGTGCAATATATAGCAAAAGAGTGGAGTTGAAACTAGAGCAATG 2040
Db 1977 CATGATGCCCTTGTGCAATATATAGCAAAAGAGTGGAGTTGAAACTAGAGCAATG 2036
Oy 2041 AAAACCTGGCCACTTTAAAGAAAGAAAGCGTACCTTACAGATATTGGTCAATA 2097
Db 2037 AAAACCTGGCCACTTTAAAGAAAGAAAGCGTACCTTACAGATATTGGTCAATA 2093

RESULT 7
US-09-567B-38
: Sequence 38, Application US/0909567B
: Publication No. US20030022257A1
: GENERAL INFORMATION:
: APPLICANT: Macina, Roberto A.
: APPLICANT: Nair, Manoj
: APPLICANT: Chen, Selyu
: TITLE OF INVENTION: Compositions and Methods Relating to Lung Specific Genes
: FILE REFERENCE: DEX-0214
: CURRENT FILING DATE: 2001-07-20
: PRIOR APPLICATION NUMBER: 60/219,834
: PRIOR FILING DATE: 2000-07-21
: NUMBER OF SEQ ID NOS: 56
: SOFTWARE: PatentIn version 3.1
: SEQ ID NO 38
: LENGTH: 2475
: TYPE: DNA
: ORGANISM: Homo sapien
: FEATURE:
: NAME/key: misc_feature
: LOCATION: (1001)..(1011)
: OTHER INFORMATION: a, c, g or t
: FEATURE:
: NAME/key: misc_feature
: LOCATION: (1011)..(1011)
: OTHER INFORMATION: a, c, g or t
US-09-567B-38

Query Match 8.3%; Score 174.4; DB 12; Length 2475;
Best Local Similarity 96.7%; Pred. No. 1.1e-44;
Matches 178; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Oy 510 ATCACTGCAATCTTGGAGAGACGACTTGTGAAGTCAAGAGCTGTACATTAAGTATCA 569
Db 1 ATCACTGCAATCTTGGAGAGAGACGACTTGTGAAGTCAAGAGCTGTACATTAAGTATCA 60
Oy 570 AGTGAGCTTGTGAGATTTGCATGATTTAGAGAGAAAGAGATTTGAGTTTGAAGCAAA 629
Db 61 AGTGAGCTTGTGAGATTTGCATGATTTAGAGAGAAAGAGATTTGAGTTTGAAGCAAA 120
Oy 630 TGCAGTAAACAGCAACCAATCCAAATGTTGAATGAAGACTTGGAGTCCATTAACCG 689
Db 121 TGCAGTAAACAGCAACCAATCCAAATGTTGAATGAAGACTTGGAGTCCATTAACCG 180
Oy 690 TTCG 693

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QY 1888 CAGCTTCATGCGCCAGGTGGCGAAGTCTCTCCAGAGAGAGCGGCATATTATG 1947  
DB 1832 AAGAGAGACAGGAGAACCTGTGGAGCTGATCCAGAGGGGGTGGCCATCTATGTG 1891  
QY 1948 TGTGAGATGCAAGATATGTGGCCAGAGATGTACA 1982  
DB 1892 TCGGGGATGCTCGAATATGTGGCCAGAGATGTGCA 1926

RESULT 10  
US-09-783-590-1364  
Sequence 1364, Application US/09783590  
Patent No. US20020110850A1  
GENERAL INFORMATION:  
APPLICANT: Dillon, Patrick J.  
APPLICANT: Haselbine, William A.  
APPLICANT: Li, Haodong  
APPLICANT: Rosen, Craig A.  
APPLICANT: Ruben, Steven M.  
TITLE OF INVENTION: Human Genes, Sequences, and Expression Products 16.2  
FILE REFERENCE: PO-16, 2C1  
CURRENT APPLICATION NUMBER: US/09/783,590  
CURRENT FILING DATE: 2000-02-15  
PRIOR APPLICATION NUMBER: 08/420,856  
PRIOR FILING DATE: 1995-04-12  
PRIOR APPLICATION NUMBER: 08/346,731  
PRIOR FILING DATE: 1994-11-21  
NUMBER OF SEQ ID NOS: 12485  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 1364  
LENGTH: 101  
TYPE: DNA  
ORGANISM: Homo sapiens  
FEATURE:  
LOCATION: (2)  
OTHER INFORMATION: n equals a,t,g, or c  
NAME/KEY: misc feature  
LOCATION: (62)  
OTHER INFORMATION: n equals a,t,g, or c  
US-09-783-590-1364

Query Match 4.0%; Score 83.8; DB 11; Length 101;  
Best Local Similarity 95.0%; Pred. No. 2.1e-16;  
Matches 96; Conservative 0; Mismatches 4; Indels 1; Gaps 1;

QY 1673 ATAGGAGAACTCCAGACACACCCAGATGGAATTTGGAGCAATGTGTTGTTT 1732  
DB 1 ANAGAGAGAACTCCAGACACACCCAGATGGAATTTGGAGCAATGTGTTGTTT 60  
QY 1733 TGGCTGCAGCATATAGATAGGG-ATTATCATTCAGAAA 1772  
DB 61 TNGCTGCAGCATATAGGTTAGGCAATTCATTCACAAA 101

RESULT 11  
US-09-294-093B-4842  
Sequence 4842, Application US/09294093B  
Patent No. US20010051335A1  
GENERAL INFORMATION:  
APPLICANT: Laljudi, Raghunath, V.  
APPLICANT: Ito, Laura, Y.  
APPLICANT: Sherman, Bradley, K.  
TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN TASSEL  
FILE REFERENCE: PL-0009 US  
CURRENT APPLICATION NUMBER: US/09/294,093B  
CURRENT FILING DATE: 1999-04-16  
PRIOR APPLICATION NUMBER: 60/082,567  
PRIOR FILING DATE: April 21, 1998  
NUMBER OF SEQ ID NOS: 6207  
SOFTWARE: PERL Program  
SEQ ID NO 4842

LENGTH: 298  
TYPE: DNA  
ORGANISM: Zea mays  
FEATURE:  
NAME/KEY: misc-feature  
OTHER INFORMATION: Incyte ID No. US20010051335A1 700355168H1  
US-09-294-093B-4842

Query Match 2.9%; Score 61; DB 10; Length 298;  
Best Local Similarity 58.0%; Pred. No. 1e-08;  
Matches 148; Conservative 0; Mismatches 100; Indels 7; Gaps 2;

QY 1587 TTTCACCTACAGATGACCCCTCAATCCCATATATGTTGGTCCAGAACCGCAT 1646  
DB 46 TTTCAGTACTGCTGACCCATCCATCCATTCATATGATGTTCTGGAGCAGGC-T 104  
QY 1647 AGCCCCGTTTATTTGGGTTCTTCAACATATAGAGAGAACTCCAGAACACCCAGATGG 1706  
DB 105 GGCTCCTTTAGAGGTTCTTGACAGAGAAAGTTAGCACTGAACAAT-----CTGAGC 158  
QY 1707 AATTTTGAGCAATGTGTTGTTTGGCTGCGAGCATTAAGATATAGGATATCTATT 1766  
DB 159 AGAAGTGGGCACTTCAATCTTTCTTTGGATGAGGAACCGTAATATAGACTACATATA 218  
QY 1767 CAGAAAGAGCTCAGACATTTCTTAAGCATGGATCTTAATCATCTAAAGTTTCTT 1826  
DB 219 TGAAGATAGCTGCAAACTTTCTTCTTGAGAGAGGGGCGCTTCTGAGCTAATTTGTCATT 278  
QY 1827 CTCAGAGATGCTCC 1841  
DB 279 CTCGCGGAGAGGGCC 293

RESULT 12  
US-09-822-849A-278  
Sequence 278, Application US/09822849A  
Patent No. US20020045170A1  
GENERAL INFORMATION:  
APPLICANT: Wong, Gordon G.  
APPLICANT: Clark, Hilary  
APPLICANT: Fechtel, Kim  
APPLICANT: Agostino, Michael J.  
APPLICANT: Howes, Steven H.  
APPLICANT: Resnick, Richard J.  
APPLICANT: Gulukota, Kamalakari  
APPLICANT: Graham, James R.  
APPLICANT: Genetics Institute, Inc.  
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS  
FILE REFERENCE: GIN 6403  
CURRENT APPLICATION NUMBER: US/09/822,849A  
CURRENT FILING DATE: 2001-09-04  
PRIOR APPLICATION NUMBER: 60/195,582  
PRIOR FILING DATE: 2000-04-06  
NUMBER OF SEQ ID NOS: 598  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 278  
LENGTH: 2470  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-822-849A-278

Query Match 2.8%; Score 59.6; DB 10; Length 2470;  
Best Local Similarity 55.6%; Pred. No. 1.2e-07;  
Matches 138; Conservative 0; Mismatches 104; Indels 6; Gaps 1;

QY 1588 TTTCACCTACAGATGACCCCTCAATCCCATATATGTTGGTCCAGAACCGCAT 1647  
DB 1615 TTTCAGTACTGCTGACCCATCCATCCATTCATATGATGTTCTGGAGCAGGC-T 1674  
QY 1648 GCCCCGTTTATTTGGGTTCTTCAACATATAGAGAGAACTCCAGAACACCCAGATGGA 1707  
DB 1675 GCACCTTCATATAGGCTTCATCCAGAGAGCGGCTGGCTGCGACAGCAGGAGAGG-- 1732



## RESULT 15

US-09-938-842A-803  
Sequence 803, Application US/09938842A  
Patent No. US20020160378A1  
GENERAL INFORMATION:  
APPLICANT: Harper, Jeff  
APPLICANT: Kreps, Joel  
APPLICANT: Wang, Xun  
APPLICANT: Zhu, Tong  
TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING  
FILE REFERENCE: SCRIPI300-3  
CURRENT APPLICATION NUMBER: US/09/938,842A  
CURRENT FILING DATE: 2001-08-24  
PRIOR APPLICATION NUMBER: US 60/227,866  
PRIOR FILING DATE: 2000-08-24  
PRIOR APPLICATION NUMBER: US 60/264,647  
PRIOR FILING DATE: 2001-01-16  
PRIOR APPLICATION NUMBER: US 60/300,111  
PRIOR FILING DATE: 2001-06-22  
NUMBER OF SEQ ID NOS: 5379  
SEQ ID NO 803  
LENGTH: 2136  
TYPE: DNA  
ORGANISM: Arabidopsis thaliana  
US-09-938-842A-803

Query Match 2.7%; Score 56; DB 11; Length 2136;  
Best Local Similarity 54.3%; Pred. No. 1.6e-06;

Matches 138; Conservative 0; Mismatches 110; Indels 6; Gaps 1;

QY 1588 TTCCACTTACCAATGACCCCTCAATCCCATCATATAGTGGGTCAGGAACGGCATA 1647  
DB 1657 TTCAGCTTCTCTGATCTAAGTACCGATCATCATGATCGTCCAGGACTGATTA 1716  
QY 1648 GCCCGTTATGCGTCTTCTACACATAGAGAACTCCAGAACACACCCAGATGA 1707  
DB 1717 GCTCCATTGAGAGATTCCTTCAGGAAGACTAGCGTTGTAGAAAT-----CTGGTGT 1770  
QY 1708 AATTTGGAGCATGTGTTGTTTGTGCTGCGCATAGAGATAGGATTATCTATTC 1767  
DB 1771 GAACCTGGGCCATCAGTTTGTCTTGGATGACAGAACCTAGAAATGATTTCATCTAC 1830  
QY 1768 AGAAAGAGCTAGACATTTCTTAAGCATGGGATCTTAACATCTAAAGGTTCCCTTC 1827  
DB 1831 GAGGAGAGCTCCACGATTTGTGAGAGTGTGCTCTGCGAGAGCTAAGTGTCCGCTTC 1890  
QY 1828 TCAGAGATGCTCC 1841  
DB 1891 TCTCGTGAAGGACC 1904

Search completed: July 29, 2003, 23:03:18  
Job time : 427.084 secs



GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: July 29, 2003, 09:58:39 ; Search time 89.0595 Seconds  
(without alignments)  
7221.032 Million cell updates/sec

Title: US-09-371-347A-43  
Perfect score: 2097  
Sequence: 1 atgagagaggttcgtctact.....ttcagatattgtcataa 2097

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 441362 seqs, 153338381 residues

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued\_Patents\_NA: \*  
1: /cgn2\_6/ptodata/1/ina/5A.COMB.seq: \*  
2: /cgn2\_6/ptodata/1/ina/5B.COMB.seq: \*  
3: /cgn2\_6/ptodata/1/ina/6A.COMB.seq: \*  
4: /cgn2\_6/ptodata/1/ina/6B.COMB.seq: \*  
5: /cgn2\_6/ptodata/1/ina/PTUS.COMB.seq: \*  
6: /cgn2\_6/ptodata/1/ina/Backfile1.seq: \*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2095.4	99.9	3259	4	US-09-318-448-23
2	386.4	18.4	390	4	US-08-905-223-71
3	63.6	3.0	4353	2	US-08-365-486A-18
4	63.6	3.0	4353	4	US-08-880-342-18
5	63.6	3.0	4780	2	US-08-365-486A-20
6	63.6	3.0	4780	3	US-09-123-708-3
7	63.6	3.0	4780	3	US-09-123-624-3
8	63.6	3.0	4780	4	US-08-880-342-20
9	57.2	2.7	5057	2	US-08-365-486A-12
10	57.2	2.7	5057	4	US-08-880-342-12
11	57.2	2.7	5108	1	US-07-642-002-1
12	53.6	2.6	1863	4	US-09-627-216A-13
13	52.8	2.5	1890	4	US-09-134-001C-1557
14	50.2	2.4	1448	4	US-08-936-165A-113
15	49.2	2.3	4145	4	US-09-302-620B-82
16	46.2	2.2	7218	1	US-08-233-463-14
17	46	2.2	4206	4	US-09-302-620B-81
18	44	2.1	307	4	US-09-172-711-24
19	43.4	2.1	7218	1	US-08-232-463-14
20	40.6	1.9	382	4	US-08-976-259-78
21	39.6	1.9	4041	1	US-08-147-812-4
22	39.6	1.9	4110	3	US-09-123-708-1
23	39.6	1.9	4110	3	US-09-123-624-1
24	39.6	1.9	4165	1	US-08-147-812-6
25	36.6	1.7	3701	1	US-08-553-279-1
26	36.6	1.7	45546	4	US-09-146-053-6
27	36	1.7	4089	1	US-07-908-245-1

28	36	1.7	4097	3	US-09-123-708-5	Sequence 5, Appl
29	36	1.7	4097	3	US-09-123-624-5	Sequence 5, Appl
30	35.4	1.7	1296	4	US-09-134-001C-1501	Sequence 1501, Ap
31	34.2	1.6	1569	1	US-08-680-726A-57	Sequence 57, Appl
32	34.2	1.6	1569	3	US-09-092-409-57	Sequence 57, Appl
33	34.2	1.6	10592	1	US-08-680-726A-51	Sequence 51, Appl
34	34.2	1.6	10592	1	US-08-680-726A-52	Sequence 52, Appl
35	34.2	1.6	10592	3	US-09-092-409-51	Sequence 51, Appl
36	34.2	1.6	10592	3	US-09-092-409-52	Sequence 52, Appl
37	34	1.6	2223	1	US-08-257-073-4	Sequence 4, Appl
38	33.8	1.6	1702	1	US-08-261-822A-14	Sequence 14, Appl
39	33.8	1.6	1702	5	PCT-US95-07744A-14	Sequence 14, Appl
40	33.8	1.6	4146	1	US-08-261-822A-15	Sequence 15, Appl
41	33.8	1.6	4146	5	PCM-US95-07744A-15	Sequence 15, Appl
42	33.2	1.6	2277	1	US-08-676-967-2	Sequence 2, Appl
43	33.2	1.6	2277	1	US-08-676-974-2	Sequence 2, Appl
44	33.2	1.6	2277	2	US-09-098-487-2	Sequence 2, Appl
45	32.6	1.6	2193	4	US-09-427-261-2	Sequence 2, Appl

ALIGNMENTS

RESULT 1									
US-09-318-448-23									
Sequence 23, Application US/09318448									
Patent No. 6210950									
GENERAL INFORMATION:									
APPLICANT: Johnson, William G.									
TITLE OF INVENTION: METHODS FOR DIAGNOSING, PREVENTING, AND TREATING									
FILE REFERENCE: 601-1-057									
CURRENT FILING DATE: 1999-05-25									
NUMBER OF SEQ ID NOS: 46									
SOFTWARE: PatentIn Ver. 2.0									
SEQ ID NO 23									
LENGTH: 3259									
TYPE: DNA									
ORGANISM: Homo sapiens									
US-09-318-448-23									
Query Match									
Best Local Similarity 100.0%: Pred. No. 0; Mismatches 1; Indels 0; Gaps 0;									
Matches 2096; Conservative 0;									
QY	1	ATGAGAGAGTTTCTGTTACTATATGCTACACAGCAGGACGCAAGGCCATCGCAGAA	60						
DB	80	ATGAGAGAGTTTCTGTTACTATATGCTACACAGCAGGACGCAAGGCCATCGCAGAA	139						
QY	61	GAATGTGTGAGCAAGCTGTGTGATCATGATTTTTCGAGATCTTCACTATATTAGTGA	120						
DB	140	GAATGTGTGAGCAAGCTGTGTGATCATGATTTTTCGAGATCTTCACTATATTAGTGA	199						
QY	121	TCCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG	180						
DB	200	TCCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG	259						
QY	181	GCGACGCGAGACCCGACGACGACGACGACGACGACGACGACGACGACGACGACGACG	240						
DB	260	GCGACGCGAGACCCGACGACGACGACGACGACGACGACGACGACGACGACGACGACG	319						
QY	241	CTGCCGTTGATTTCTGTTCTGCTACCTGCGGATGATGATGATGATGATGATGATGATG	300						
DB	320	CTGCCGTTGATTTCTGTTCTGCTACCTGCGGATGATGATGATGATGATGATGATGATG	379						
QY	301	TACACCTACTTTTGAATGGGGAGATTAATGAACGACTCAAGAGCTTGAGACC	360						
DB	380	TACACCTACTTTTGAATGGGGAGATTAATGAACGACTCAAGAGCTTGAGACC	439						
QY	361	CGGCATTTCTATGACATGACATGACATGACATGACATGACATGACATGACATGACATG	420						



TELEPHONE: (619) 235-8550  
 TELEFAX: (619) 235-0176  
 INFORMATION FOR SEQ ID NO: 71:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 390 base pairs  
 TYPE: NUCLEIC ACID  
 STRANDEDNESS: DOUBLE  
 TOPOLOGY: LINEAR  
 MOLECULE TYPE: cDNA  
 ORGANISM: Homo Sapiens  
 TISSUE TYPE: Brain  
 FEATURE:  
 NAME/KEY: sig\_peptide  
 LOCATION: 289..357  
 IDENTIFICATION METHOD: Von Heijne matrix  
 OTHER INFORMATION: score 6.9  
 OTHER INFORMATION: seq SLSLASHSVSC/SN  
 US-08-905-223-71

Query Match 18.4%; Score 386.4; DB 4; Length 390;  
 Best Local Similarity 99.7%; Pred. No. 2.5e-116;  
 Matches 387; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 968 AGGTACAAAGCCTTCTCAAGAGCTGACCTGAGATAAAGAGAGACAGCTGCTCTTT 1027  
 1 AAGTCAAAAGCCTTCTCAAGAGCTGACCTGAGATAAAGAGAGACAGCTGCTCTTT 60  
 QY 1028 TAAATAAAGCAGACAGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1087  
 61 TAAATAAAGCAGACAGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 120  
 QY 1088 GATGTTCTCTCAGTTCATTTTACCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1147  
 121 GATGTTCTCTCAGTTCATTTTACCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 180  
 QY 1148 CATTTTGGAGCCCTTGTGACTATACAGTACAGTCTGTAAGAGAGAGAGAGAGAG 1207  
 181 CATTTTGGAGCCCTTGTGACTATACAGTACAGTCTGTAAGAGAGAGAGAGAGAG 240  
 QY 1208 ACTGTGCGATTAACAGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1267  
 241 ACTGTGCGATTAACAGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 300  
 QY 1268 GCTTGTGGATCTCCCTCGCTTTCCTTTCCTTTCCTTTCCTTTCCTTTCCTTTCCT 1327  
 301 GCTTGTGGATCTCCCTCGCTTTCCTTTCCTTTCCTTTCCTTTCCTTTCCTTTCCT 360  
 QY 1328 AACATCTTCTTAACCTTCAACCCAGAGC 1355  
 361 AACATCTTCTTAACCTTCAACCCAGAGC 388  
 Db

## RESULT 3

US-08-365-486A-18  
 Sequence 18, Application US/08365486A  
 Patent No. 5834306  
 GENERAL INFORMATION:  
 APPLICANT: Webster, Keith A.  
 APPLICANT: Bishopric, Nanette H.  
 TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
 TITLE OF INVENTION: Therapeutic Constructs  
 NUMBER OF SEQUENCES: 31  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: Dehlinger & Associates  
 STREET: 350 Cambridge Avenue, Suite 250  
 CITY: Palo Alto  
 STATE: CA  
 COUNTRY: USA  
 ZIP: 94306  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: PatentIn Release #1.0, Version #1.25  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/365,486A  
 FILING DATE: 23-DEC-1994  
 CLASSIFICATION: 514  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Sholtz, Charles K.  
 REGISTRATION NUMBER: 38,615  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (415) 324-0880  
 TELEFAX: (415) 324-0960  
 INFORMATION FOR SEQ ID NO: 18:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 4353 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: double  
 TOPOLOGY: linear  
 MOLECULE TYPE: cDNA to mRNA  
 HYPOTHETICAL: NO  
 AMTI-SENSE: NO  
 ORIGINAL SOURCE:  
 INDIVIDUAL ISOLATE: Human NOS-1 gene, Fujisawa, et al,  
 INDIVIDUAL ISOLATE: J. Neurochem 63:140 1994  
 FEATURE:  
 NAME/KEY: CDS  
 LOCATION: 1..4305  
 US-08-365-486A-18

Query Match 3.0%; Score 63.6; DB 2; Length 4353;  
 Best Local Similarity 48.8%; Pred. No. 5.7e-10;  
 Matches 245; Conservative 0; Mismatches 239; Indels 18; Gaps 2;

QY 1588 TTCCACTTACCAAGATGACCCCTCATATCCCATATATAGTGGCTCCAGAACCGCAT 1647  
 3715 TTCCACTTACCAAGATGACCCCTCATATCCCATATATAGTGGCTCCAGAACCGCAT 3774  
 QY 1648 GCGCCGTTTATGGTCTTCTACACATAGAGAACTCCAGAACACACCCAGATGGA 1707  
 3775 GCGCCGTTTATGGTCTTCTACACATAGAGAACTCCAGAACACACCCAGATGGA 3831  
 Db  
 QY 1708 AATTTGGAGCAATGTTGTTTGGCTGAGCATTAAGGATAGGATTAATCTATTC 1767  
 3832 AATTTGGAGCAATGTTGTTTGGCTGAGCATTAAGGATAGGATTAATCTATTC 3891  
 QY 1768 AGAAAGAGCTCAGACATTTCTTAAGCATGGATCTTAACCTCAATCAAGGTTTCCTTC 1827  
 3892 AGAAAGAGCTCAGACATTTCTTAAGCATGGATCTTAACCTCAATCAAGGTTTCCTTC 3951  
 QY 1828 TCAGAGATGCTCTTGGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1887  
 3952 TCAGAGATGCTCTTGGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3996  
 Db  
 QY 1888 CAGCTTCATGGCAGCAGGTGCGAGAAATCTCTCCAGAGAGAACGCTATATTTATGTG 1947  
 3997 CAGCTTCATGGCAGCAGGTGCGAGAAATCTCTCCAGAGAGAACGCTATATTTATGTG 4056  
 QY 1948 TGTGAGATGCAAGAAATATGCGCAAGATGATGATGATGATGATGATGATGATGAT 2007  
 4057 TGTGAGATGCAAGAAATATGCGCAAGATGATGATGATGATGATGATGATGATGAT 4116  
 QY 2008 AAGAGGTTGGAGTTGAAAACATAGAGCAATGAAGAAACCTGGCCATTTAAAGAGAA 2067  
 4117 CAGCAGGAGAGAGCTTCGCGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2126  
 Db  
 QY 2068 AAGAGGTTGGAGTTGAAAACATAGAGCAATGAAGAAACCTGGCCATTTAAAGAGAA 2126  
 4177 AAGAGGTTGGAGTTGAAAACATAGAGCAATGAAGAAACCTGGCCATTTAAAGAGAA 4176  
 QY 4177 AAGAGGTTGGAGTTGAAAACATAGAGCAATGAAGAAACCTGGCCATTTAAAGAGAA 4198  
 Db

## RESULT 4

US-08-880-342-18

Sequence 18, Application US/08880342  
Patent No. 6218179  
GENERAL INFORMATION:  
APPLICANT: Webster, Keith A.  
APPLICANT: Bishopric, Nanette H.  
APPLICANT: Murphy, Brian  
APPLICANT: Laderoute, Keith R.  
APPLICANT: Green, Christopher J.  
TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
TITLE OF INVENTION: Therapeutic Constructs  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Dehlinger & Associates  
STREET: 350 Cambridge Avenue, Suite 250  
CITY: Palo Alto  
STATE: CA  
COUNTRY: USA  
ZIP: 94306  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/880,342  
FILING DATE: 23-JUN-1997  
CLASSIFICATION: 514  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: PCT/IB95/00996  
FILING DATE: 13-NOV-1995  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/365,486  
FILING DATE: 23-DEC-1994  
ATTORNEY/AGENT INFORMATION:  
NAME: Sholtz, Charles K.  
REGISTRATION NUMBER: 38,615  
REFERENCE/DOCKET NUMBER: 8255-0018.30  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-0880  
TELEFAX: (415) 324-0960  
INFORMATION FOR SEQ ID NO: 18:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 4353 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA to mRNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
ORIGINAL SOURCE:  
INDIVIDUAL ISOLATE: Human NOS-1 gene, Fujisawa, et al,  
FEATUERE:  
NAME/KEY: CDS  
LOCATION: 1..4305  
US-08-880-342-18

Query Match 3.0%; Score 63.6; DB 4; Length 4353;  
Best Local Similarity 48.8%; Pred. No. 5.7e-10;  
Matches 245; Conservative 0; Mismatches 239; Indels 18; Gaps 2;

QY 1588 TTCCAGCTTACGATGAGACCCCTCATATCCCATCATATATGTTGGTCCAGAGAACCGGCATA 1647  
DB 3715 TTCCAGCTTACGATGAGACCCCTCATATCCCATCATATATGTTGGTCCAGAGAACCGGCATA 3774  
QY 1648 GCCCGTTTATGGTCTTACACATAGAGAGAACTCCAGAACACACCAATGGA 1707  
DB 3775 GCCCGTTTATGGTCTTACACATAGAGAGAACTCCAGAACACACCAATGGA 3831  
QY 1708 AATTTGAGCAATGTGTTGTTTGGCTGACAGCATTAAGATAGGATATATCTATTC 1767  
DB 3832 AACCCCTGCGCCATGTCTCTGTTTGGGCTGCGGCAATCAACATATATATCTAC 3891

QY 1768 AGAAGAGCTCAGACATTTCTTAAGCATGGCATCTTAATCATCTAAAGTTTCTTC 1827  
DB 3892 AGGAAGAGACCTCGAGGCCCAAGAACAGGGGTCTTGAGAGATGTAACAGGCTTAC 3951  
QY 1828 TCAAGATCTCTCTGTTGGGAGAGAGAACCCCAAGAAATATGTACAGACAAATC 1887  
DB 3952 TCCC-----GGGAGCCAGAACAAACAAAGAAATGACGTGCGAGCATCTCG 3996  
QY 1888 CAGCTTCATGGCCAGCAGATGGGAGAAATCTCTCCAGAGAAAGGCCATATTATTG 1947  
DB 3997 CAGGAGCAGCTGGCGGAGATGTGTATCCAGAGCCCTTAAGAGAGCAAGGGGCCCATATAC 4056  
QY 1948 TGTGAGATGCAAGAAATATGSCCAAGATGTATCATGATGCCCTTGCAAAATATAC 2007  
DB 4057 GTCTGTGGGAGCGTCAACATGCTGCTGATGTCTCAAAAGCCATTCAGCGCATCATGACC 4116  
QY 2008 AAGAGTTGCAATGTAAGAACTAAGAAATCAATCAATCAATCAATCAATCAATCAAT 2067  
DB 4117 CAGCAGGGGAGAGCTTCGCGCAGAGAGAGCGCGGTATTATCATCAGCGGATGAGGATGAC 4176  
QY 2068 AAGCCTACCTTCAGGATATTT 2089  
DB 4177 AACCATACCATGAGATATTT 4198

RESULT 5  
US-08-365-486A-20  
Sequence 20, Application US/08365486A  
Patent No. 5834306  
GENERAL INFORMATION:  
APPLICANT: Webster, Keith A.  
APPLICANT: Bishopric, Nanette H.  
TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
TITLE OF INVENTION: Therapeutic Constructs  
NUMBER OF SEQUENCES: 31  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Dehlinger & Associates  
STREET: 350 Cambridge Avenue, Suite 250  
CITY: Palo Alto  
STATE: CA  
COUNTRY: USA  
ZIP: 94306  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/365,486A  
FILING DATE: 23-DEC-1994  
CLASSIFICATION: 514  
ATTORNEY/AGENT INFORMATION:  
NAME: Sholtz, Charles K.  
REGISTRATION NUMBER: 38,615  
REFERENCE/DOCKET NUMBER: 8255-0018  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-0880  
TELEFAX: (415) 324-0960  
INFORMATION FOR SEQ ID NO: 20:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 4780 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA to mRNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
ORIGINAL SOURCE:  
INDIVIDUAL ISOLATE: Human NOS-1N gene, Nakane, et al,  
INDIVIDUAL ISOLATE: FEBS Lett 316:175 (1993)  
FEATUERE:  
NAME/KEY: CDS  
LOCATION: 431..4732

US-08-365-486A-20

Query Match 3.0%; Score 63.6; DB 2; Length 4780;

Best Local Similarity 48.8%; Pred. No. 6.1e-10;

Matches 245; Conservative 0; Mismatches 239; Indels 18; Gaps 2;

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OY 1588 TTCACCTTACAGATGACCCCTCAATCCCATCATATGATGGGTCCAGAAACCGGCATTA 1647
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4142 TTCACCTGCCCCGGAAACCCCAAGTCCCTGATCCTCTGTGGACAGGACCGGCATT 4201
OY 1648 GCCCGGTTTATGGTTCCTCAACATAGAGAAATCCCAAGAAACACCCAGATGGA 1707
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4202 GCCCCTTCCGAAAGCTTCTGCGACACAGC---GCAATTTGATATCCAAACAAAGGAATG 4258
OY 1708 AATTTTGAGCAATGTGTTGTTTGGCTGCAGGCAATAGCATAGGATTAATCTATTC 1767
    || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4259 AACCCCTGCCCATGTGCTCTGCTTGGGTGCGGCAATCCAGATAGATCATATCTATC 4318
OY 1768 AGAAAGAGCTCAGACATTTCTTAAGCATGGATCTTAAGCTTAAGGTTTCCTTC 1827
    || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4319 AGGAGAGAGACCTTCAGAGCCAGAGAAAGGGGCTTCAAGAGACTGTACACGGCTTAC 4378
OY 1828 TCAGAGATGCTCCTGTTGGGAGAGAGAGAGCCCAAGATATGTACAAAGACATATC 1887
    || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4379 TCCC-----GGAGCCAGACAACCAAGAAAGTACGTGACAGACATCTGTG 4423
OY 1888 CAGCTTCATGGCCAGAGTGGCGGAGAAATCTCTCCAGAGAAAGGCCATATTTATGTG 1947
    || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4424 CAGAGCAGCTGGCGGAGTCTGTGTACGAGACCTCGAAGAGAGCAAGGGGCCACATATAC 4483
OY 1948 TGTGAGATGCAAAAGATATGCGCAAGGATGATCATATGATGCTTGTCAAAATATTAAGC 2007
    || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4484 GTCTGTGGGAGAGTACCATGCTGCTGATGTCTCAAGCATTCACAGCATCATATGACC 4543
OY 2008 AAAGAGTTGGAGTTGAAAACTAGAGCAATGAAACCTGCGCATTAAAGAGAGAA 2067
    || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4544 CAGCAGGAGAAAGCTCTCGGAGAGAGAGCGCGGCTATTATCATGCGGATGAGGATGAC 4603
OY 2068 AAAGCTACCTTCAGATATTT 2089
    || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4604 AACCATACCATGAGATATTT 4625
    || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
```

RESULT 6

US-09-123-708-3

Sequence 3, Application US/09123708

Patent No. 6148887

GENERAL INFORMATION:

APPLICANT: SCHRADER, Juergen

APPLICANT: GODECKE, Axel

TITLE OF INVENTION: DNA EXPRESSION VECTORS FOR USE IN GENE THERAPEUTIC

FILE REFERENCE: 511169-2003

CURRENT APPLICATION NUMBER: US/09/123,708

CURRENT FILING DATE: 1998-07-28

EARLIER APPLICATION NUMBER: 08/553,503

EARLIER FILING DATE: 1996-03-01

EARLIER APPLICATION NUMBER: P4411402.8

EARLIER FILING DATE: 1994-03-31

NUMBER OF SEQ ID NOS: 6

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 3

LENGTH: 4780

TYPE: DNA

ORGANISM: Cytomegalovirus

US-09-123-708-3

Query Match 3.0%; Score 63.6; DB 3; Length 4780;

Best Local Similarity 48.8%; Pred. No. 6.1e-10;

Matches 245; Conservative 0; Mismatches 239; Indels 18; Gaps 2;

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OY 1588 TTCACCTTACAGATGACCCCTCAATCCCATCATATGATGGGTCCAGAAACCGGCATTA 1647
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4142 TTCACCTGCCCCGGAAACCCCAAGTCCCTGATCCTCTGTGGACAGGACCGGCATT 4201
OY 1648 GCCCGGTTTATGGTTCCTCAACATAGAGAAATCCCAAGAAACACCCAGATGGA 1707
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4202 GCCCCTTCCGAAAGCTTCTGCGACACAGC---GCAATTTGATATCCAAACAAAGGAATG 4258
OY 1708 AATTTTGAGCAATGTGTTGTTTGGCTGCAGGCAATAGCATAGGATTAATCTATTC 1767
    || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
```

DB 4142 TTCACCTGCCCGGAACCCCAAGTCCCTGATCCTCTGTGGACAGGACCGGCATT 4201

OY 1648 GCCCGGTTTATGGTTCCTCAACATAGAGAAATCCCAAGAAACACCCAGATGGA 1707

DB 4202 GCCCCTTCCGAAAGCTTCTGCGACACAGC---GCAATTTGATATCCAAACAAAGGAATG 4258

OY 1708 AATTTTGAGCAATGTGTTGTTTGGCTGCAGGCAATAGCATAGGATTAATCTATTC 1767

DB 4259 AACCCCTGCCCATGTGCTCTGCTTGGGTGCGGCAATCCAGATAGATCATATCTAC 4318

OY 1768 AGAAAGAGCTCAGACATTTCTTAAGCATGGATCTTAAGCTTAAGGTTTCCTTC 1827

DB 4319 AGGAGAGAGACCTTCAGAGCCAGAGAAAGGGGCTTCAAGAGACTGTACACGGCTTAC 4378

OY 1828 TCAGAGATGCTCCTGTTGGGAGAGAGAGAGCCCAAGATATGTCAAGACACATATC 1887

DB 4379 TCCC-----GGAGCCAGACAACCAAGAAAGTACGTGACAGACATCTGTG 4423

OY 1888 CAGCTTCATGGCCAGAGTGGCGGAGAAATCTCTCCAGAGAAAGGCCATATTTATGTG 1947

DB 4424 CAGAGCAGCTGGCGGAGTCTGTGTACGAGACCTCGAAGAGAGCAAGGGGCCACATATAC 4483

OY 1948 TGTGAGATGCAAAAGATATGCGCAAGGATGATCATATGATGCTTGTCAAAATATTAAGC 2007

DB 4484 GTCTGTGGGAGAGTACCATGCTGCTGATGTCTCAAGCATTCACAGCATCATATGACC 4543

OY 2008 AAAGAGTTGGAGTTGAAAACTAGAGCAATGAAACCTGCGCATTAAAGAGAGAA 2067

DB 4544 CAGCAGGAGAAAGCTCTCGGAGAGAGAGCGCGGCTATTATCATGCGGATGAGGATGAC 4603

OY 2068 AAAGCTACCTTCAGATATTT 2089

DB 4604 AACCATACCATGAGATATTT 4625

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OY 1588 TTCACCTTACAGATGACCCCTCAATCCCATCATATGATGGGTCCAGAAACCGGCATTA 1647
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4142 TTCACCTGCCCCGGAAACCCCAAGTCCCTGATCCTCTGTGGACAGGACCGGCATT 4201
OY 1648 GCCCGGTTTATGGTTCCTCAACATAGAGAAATCCCAAGAAACACCCAGATGGA 1707
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4202 GCCCCTTCCGAAAGCTTCTGCGACACAGC---GCAATTTGATATCCAAACAAAGGAATG 4258
OY 1708 AATTTTGAGCAATGTGTTGTTTGGCTGCAGGCAATAGCATAGGATTAATCTATTC 1767
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RESULT 7

US-09-123-624-3

Sequence 3, Application US/09123624

Patent No. 6149936

GENERAL INFORMATION:

APPLICANT: SCHRADER, Juergen

APPLICANT: GODECKE, Axel

TITLE OF INVENTION: DNA EXPRESSION VECTORS FOR USE IN THE GENE THERAPEUTIC

FILE REFERENCE: 511169-2004

CURRENT APPLICATION NUMBER: US/09/123,624

CURRENT FILING DATE: 1998-07-28

PRIOR APPLICATION NUMBER: 08/553,503

PRIOR FILING DATE: 1996-03-01

PRIOR APPLICATION NUMBER: 4411402.8

PRIOR FILING DATE: 1994-03-31

NUMBER OF SEQ ID NOS: 6

SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO 3

LENGTH: 4780

TYPE: DNA

ORGANISM: Homo sapiens

US-09-123-624-3

Query Match 3.0%; Score 63.6; DB 3; Length 4780;

Best Local Similarity 48.8%; Pred. No. 6.1e-10;

Matches 245; Conservative 0; Mismatches 239; Indels 18; Gaps 2;

```
OY 1588 TTCACCTTACAGATGACCCCTCAATCCCATCATATGATGGGTCCAGAAACCGGCATTA 1647
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4142 TTCACCTGCCCCGGAAACCCCAAGTCCCTGATCCTCTGTGGACAGGACCGGCATT 4201
OY 1648 GCCCGGTTTATGGTTCCTCAACATAGAGAAATCCCAAGAAACACCCAGATGGA 1707
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4202 GCCCCTTCCGAAAGCTTCTGCGACACAGC---GCAATTTGATATCCAAACAAAGGAATG 4258
OY 1708 AATTTTGAGCAATGTGTTGTTTGGCTGCAGGCAATAGCATAGGATTAATCTATTC 1767
    || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
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Db 4259 AACCCCTGCCCCAGGTGCTCTGCTGCGGTGCGGCAATCCAGATGATCATATCTAC 4318
Oy 1768 AGAAAGAGCTCAGACATTTCTTAAGCATGGATCTTAACATCATTAAGSTTTCTTC 1827
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4319 AGGGAAGACCCCTGAGGCCAAGAGGAGGCTTTCAGAGACTGTACAGCGCTTAC 4378
Oy 1828 TCAGAGATGCTCTGTTGGGAGAGAGAGCCCGAGCAAGTATGTACAGACAACTC 1887
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4379 TCCC-----GGAGCCAGACAACCAAGAGTAGTGTGACAGACATCTCTG 4423
Oy 1888 CAGCTTCATGGCCAGCAGATGGCCGAGATCTCTCTCCAGAGAGACGCCATATTATGTG 1947
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4424 CAGAGCAGCTGGCGGAGTCTGTGTACCGAGCGCTGAAGGAGCAAGGGCCACATATAC 4483
Oy 1948 TGTGAGATGCAAAAGATATGCGCAAGGATGTACATGATGCCCTTGTGCAATATATAGC 2007
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4484 GTCTGTGGGAGCTGTACCATGTGCTGTCTGTCTCTCAAGACCATCCAGCGATCATGTACC 4543
Oy 2008 AAAGAGTTGGATGAAACCTAGAGCAATGAAACCTGTGCGCATTTAAAGAGAA 2067
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4544 CAGCAGGGGAGCTCTCGCGAGAGAGCGCGCGTATTCATCAGCGGATGAGGATGAC 4603
Oy 2068 AAAGCTACTTCAGATATTT 2089
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4604 AACGATACCATGAGATATTT 4625

```

# RESULT 8 US-08-880-342-20

Sequence 20, Application US/08880342  
Patent No. 6218179

## GENERAL INFORMATION:

APPLICANT: Webster, Keith A.  
APPLICANT: Bishopric, Nanette H.  
APPLICANT: Murphy, Brian  
APPLICANT: Laderoute, Keith R.  
APPLICANT: Green, Christopher J.  
TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Dehlinger & Associates  
STREET: 350 Cambridge Avenue, Suite 250  
CITY: Palo Alto  
STATE: CA  
COUNTRY: USA  
ZIP: 94306

## COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/880,342  
FILING DATE: 23-JUN-1997  
CLASSIFICATION: 514  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: PCT/IB95/00996  
FILING DATE: 13-NOV-1995  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/365,486  
FILING DATE: 23-DEC-1994  
ATTORNEY/AGENT INFORMATION:  
NAME: Sholtz, Charles R.  
REGISTRATION NUMBER: 38,615  
REFERENCE/DOCKET NUMBER: 8255-0018.30  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-0880  
TELEFAX: (415) 324-0960  
INFORMATION FOR SEQ ID NO: 20:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 4780 base pairs  
TYPE: nucleic acid

STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA to mRNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
ORIGINAL SOURCE:  
INDIVIDUAL ISOLATE: Human NOS-SN gene, Nakane, et al,  
INDIVIDUAL ISOLATE: FEBS Lett 316:175 (1993)  
FEATURE:  
NAME/KEY: CDS  
LOCATION: 431..4732  
US-08-880-342-20

Query Match 3.0%; Score 63.6; DB 4; Length 4780;  
Best Local Similarity 48.8%; Pred. No. 6.1e-10;  
Matches 245; Conservative 0; Mismatches 239; Indels 18; Gaps 2;

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Oy 1588 TTCACCTTACAGATGACCCCTCAATCCCATATATGTTGGTCCAGAACCGCATTA 1647
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4142 TTCACCTGCCCCGAGACCCCAAGTCCCTGCATCTCTGTGGACGAGCGCATTT 4201
Oy 1648 GCCCGCTTATTTGGTTCTTCAACATATGAGAGAACTCCAGAACACCCAGATGA 1707
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4202 GCCCTTTCCGACCTTGTGGCAACAGCG---GCAATTTGATATCAACCAAGGAATG 4258
Oy 1708 AATTTGAGCAATGTGTGTTTGGCTGAGGCAATAGGATATGATATCTATTC 1767
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4259 AACCCCTGCCCATGTCTGTCTGTGGGTGCGGCAATCCAGATGATCATATCTAC 4318
Oy 1768 AGAAAGAGCTCAGACATTTCTTAAGCATGGATCTTAACATCATTAAGSTTTCTTC 1827
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4319 AGGGAAGACCCCTGAGGCCAAGAGGAGGCTTTCAGAGAGCTGTACACGCTTAC 4378
Oy 1828 TCAGAGATGCTCTGTTGGGAGAGAGAACCCCGCAAGTATGTACAGACAACTC 1887
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4379 TCCC-----GGAGCCAGACAACCAAGAGTAGTGTGACAGACATCTCTG 4423
Oy 1888 CAGCTTCATGGCCAGCAGATGGCGAGATCTCTCTCCAGAGAGACGCCATATTATGTG 1947
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4424 CAGAGAGCAGTGGGAGAGTCTGTGTACCGAGCCCTGAAGAGAGCAAGGGGCCACATATAC 4483
Oy 1948 TGTGAGATGCAAAAGATATGCGCAAGGATGTACATGATGCCCTTGTGCAATATATAGC 2007
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4484 GTCTGTGGGAGCTGTACCATGTGCTGTATCTCTCAAGACCATCCAGCGATCATGACC 4543
Oy 2008 AAAGAGTTGGATGAAACCTAGAGCAATGAAACCTGTGCGCATTTAAAGAGAA 2067
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4544 CAGCAGGGGAGCTCTCGCGAGAGAGCGCGCGTATTCATCAGCGGATGAGGATGAC 4603
Oy 2068 AAAGCTACTTCAGATATTT 2089
    || ||||| || || ||||| || || ||||| || || ||||| || || |||||
Db 4604 AACGATACCATGAGATATTT 4625

```

# RESULT 9

US-08-365-486A-12  
Sequence 12, Application US/08365486A  
Patent No. 5834306

## GENERAL INFORMATION:

APPLICANT: Webster, Keith A.  
APPLICANT: Bishopric, Nanette H.  
APPLICANT: Murphy, Brian  
APPLICANT: Laderoute, Keith R.  
APPLICANT: Green, Christopher J.  
TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
NUMBER OF SEQUENCES: 31  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Dehlinger & Associates  
STREET: 350 Cambridge Avenue, Suite 250  
CITY: Palo Alto  
STATE: CA  
COUNTRY: USA  
ZIP: 94306

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/365,486A  
FILING DATE: 23-DEC-1994  
CLASSIFICATION: 514  
ATTORNEY/AGENT INFORMATION:  
NAME: Sholtz, Charles K.  
REGISTRATION NUMBER: 38,615  
REFERENCE/DOCKET NUMBER: 8255-0018  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-0880  
TELEFAX: (415) 324-0960  
INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 5057 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA to mRNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
ORIGINAL SOURCE:  
INDIVIDUAL ISOLATE: rat bnos cDNA  
FEATURE:  
NAME/KEY: CDS  
LOCATION: 349..4638  
US-08-365-486A-12

Query Match 2.7%; Score 57.2; DB 2; Length 5057;  
Best Local Similarity 48.0%; Pred. No. 7.8e-08;  
Matches 241; Conservative 0; Mismatches 243; Indels 18; Gaps 2;

1588 TTCACCTTACGAGATGACCCCTCATCCCATCATTAATGTTGGTCCAGAGACCGGCATA 1647  
|||||  
4048 TTCACCTTACGAGATGACCCCTCATCCCATCATTAATGTTGGTCCAGAGACCGGCATA 4107  
1648 GCGCCGTTTATGTTGGTCTCTCAACATAGAGAACTCCAGAACACACACCAGATGGA 1707  
|||||  
4108 GCACCCCTTCGGAAGCTTCTGGCAACAGGAC---AATTGACATCCAAACACAAAGGAATG 4164  
1708 AATTTGGAGCATGTGGTTGTTTTTGGCTGCAGGATAGAGATAGGATTTATCTATTC 1767  
|||||  
4165 AATCGTGCCCATGTGTTCTGCTTCGGGTGTCGACATCCAAATGATGATATCTAC 4224  
1768 AGAAAGAGCTCAGACATTTCTTAAGCATGGGATCTTAACATCTAAAGTTTCTTC 1827  
|||||  
4225 AGAGAGGAGACCTTCAGGCTAAGAACAAAGGCGCTTTCAGAGACTGTACACTGCTAT 4284  
1828 TCACAGATGCTCTGTTGGGAGAGAGAGCCCGACAAAGATGATGTCACAAACAATC 1887  
|||||  
4285 TCCTCGGGAAC-----GGACAGGCCAAAGAAATATGACAGGACGTGCTG 4329  
1888 CAGCTTCATGGCCAGCAGGTGGCGAATCTCTCTCCAGAGACGCCATATTTATGTG 1947  
|||||  
4330 CAGCAACAGCTGAGTGTGTGTACCGCGCTCGAAGAGACAGAGGCCACATTTAT 4389  
1948 TGTGAGATGCAAAATATATGCGCCCAAGATGATGATGCTTGTGCAATATTAAGC 2007  
4390 GTCTGTGGGAGCTTACCATGCGCCGATGCTCAAGATGCTCCAGGATTAATGACC 4449  
2008 AAAGAGTTGGAGTTGAAGAACTAGAGCAATGAAGACCTGGCCACTTTAAAGAGAA 2067  
4450 CAGCAGGGGAAACTCTCAGAGAGAGACGCTGTGTATTCATCAGAGGCTGAGGATGAC 4509  
2068 AAAGCTACCTTCAGATATTTT 2089  
4510 AACCGTACACAGAGACATCT 4531

RESULT 10  
US-08-880-342-12

Sequence 12, Application US/08880342  
Patent No. 6218179  
GENERAL INFORMATION:  
APPLICANT: Webster, Keith A.  
APPLICANT: Bishopric, Nanette H.  
APPLICANT: Murphy, Brian  
APPLICANT: Laderoute, Keith R.  
APPLICANT: Green, Christopher J.  
TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Denlinger & Associates  
STREET: 350 Cambridge Avenue, Suite 250  
CITY: Palo Alto  
STATE: CA  
COUNTRY: USA  
ZIP: 94306  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/880,342  
FILING DATE: 23-JUN-1997  
CLASSIFICATION: 514  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: PCT/IB95/00996  
FILING DATE: 13-NOV-1995  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/365,486  
FILING DATE: 23-DEC-1994  
ATTORNEY/AGENT INFORMATION:  
NAME: Sholtz, Charles K.  
REGISTRATION NUMBER: 38,615  
REFERENCE/DOCKET NUMBER: 8255-0018.30  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-0880  
TELEFAX: (415) 324-0960  
INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 5057 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA to mRNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
ORIGINAL SOURCE:  
INDIVIDUAL ISOLATE: rat bnos cDNA  
FEATURE:  
NAME/KEY: CDS  
LOCATION: 349..4638  
US-08-880-342-12

Query Match 2.7%; Score 57.2; DB 4; Length 5057;  
Best Local Similarity 48.0%; Pred. No. 7.8e-08;  
Matches 241; Conservative 0; Mismatches 243; Indels 18; Gaps 2;

1588 TTCACCTTACGAGATGACCCCTCATCCCATCATTAATGTTGGTCCAGAGACCGGCATA 1647  
|||||  
4048 TTCACCTTACGAGATGACCCCTCATCCCATCATTAATGTTGGTCCAGAGACCGGCATA 4107  
1648 GCGCCGTTTATGTTGGTCTCTCAACATAGAGAACTCCAGAACACACACCAGATGGA 1707  
|||||  
4108 GCACCCCTTCGGAAGCTTCTGGCAACAGGAC---AATTGACATCCAAACACAAAGGAATG 4164  
1708 AATTTGGAGCATGTGGTTGTTTTTGGCTGCAGGCAATAGAGATAGGATTTATCTATTC 1767  
|||||  
4165 AATCGTGCCCATGTGTTCTGCTTCGGGTGTCGACATCCAAATGATGATATCTAC 4224  
1768 AGAAAGAGCTCAGACATTTCTTAAGCATGGGATCTTAACATCTAAAGTTTCTTC 1827

Db 4225 AGAGGAGAGACCTTCAGAGCTAAGAAAGGCGCTCTTCAGAGAGCTGACACTGCTAT 4284  
1828 TCAGAGATGCTCCCTGTTGGGAGAGAGAGCCCGACGAAGTATGTACAGACACATC 1887  
Db 4285 TCCCGGGAAC-----GGACAGGCCAAGAAATATGTACAGAGACGTGCTG 4329  
1888 CAGCTTCATGGCCAGAGTGGCGGAAATCTCTCCAGAGAAAGCCCATTTATTTATGTG 1947  
Db 4330 CAGGAACAGCTGGCTGTGATCTGTATACCGCGCTGAAAGAGCAAGAGGCCACATTTAT 4389  
1948 TGTGAGATGCAAGAAATATGTGCCAAGATGTACATGTGCTTGTGCAATTAATTAAGC 2007  
Db 4390 GTCTGTGGGAGCGTTACCATGGCGCGCATGTCTCAAGAGCCATCCAGCGCATTAATGACC 4449  
2008 AAAGAGGTGGAGTTGAAAGAACTAGAACAAATGAAGAACCCCTGGCCCTTTAAAGAGAA 2067  
Db 4450 CAGCAGGGGAAACTCTCAGAGAGAGAGCGCTGTGTATTCATCAGCAGCGCTGAGGATGAC 4509  
1948 TGTGAGATGCAAGAAATATGTGCCAAGATGTACATGTGCTTGTGCAATTAATTAAGC 2007  
Db 4390 GTCTGTGGGAGCGTTACCATGGCGCGCATGTCTCAAGAGCCATCCAGCGCATTAATGACC 4449  
2008 AAAGAGGTGGAGTTGAAAGAACTAGAACAAATGAAGAACCCCTGGCCCTTTAAAGAGAA 2067  
Db 4450 CAGCAGGGGAAACTCTCAGAGAGAGAGCGCTGTGTATTCATCAGCAGCGCTGAGGATGAC 4509  
1948 TGTGAGATGCAAGAAATATGTGCCAAGATGTACATGTGCTTGTGCAATTAATTAAGC 2007  
Db 4390 GTCTGTGGGAGCGTTACCATGGCGCGCATGTCTCAAGAGCCATCCAGCGCATTAATGACC 4449  
2008 AAAGAGGTGGAGTTGAAAGAACTAGAACAAATGAAGAACCCCTGGCCCTTTAAAGAGAA 2067  
Db 4450 CAGCAGGGGAAACTCTCAGAGAGAGAGCGCTGTGTATTCATCAGCAGCGCTGAGGATGAC 4509

## RESULT 11

US-07-642-002-1  
Sequence 1, Application US/07642002  
Patent No. 5268465

## GENERAL INFORMATION:

APPLICANT: Bredt, David S.  
APPLICANT: Huang, Paul M.  
APPLICANT: Reed, Randall  
APPLICANT: Snyder, Solomon H.  
TITLE OF INVENTION: Purification and Molecular Cloning of Nitric  
NUMBER OF SEQUENCES: 2  
CORRESPONDENCE ADDRESS:  
ADDRESSER: Banner, Birch, McKie & Beckett  
STREET: One Thomas Circle, NW  
CITY: Washington  
STATE: DC  
COUNTRY: USA  
ZIP: 20005

## COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.24  
CURRENT APPLICATION DATA: US/07/642,002  
FILING DATE: 19910118  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Kagan, Sarah A.  
REGISTRATION NUMBER: 32,141  
REFERENCE/DOCKET NUMBER: 1107,033576  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (202) 296-5500  
TELEFAX: (202) 296-7830  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 5108 base pairs  
TYPE: NUCLEIC ACID  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA  
HYPOTHETICAL: N  
ANTI-SENSE: N  
ORIGINAL SOURCE:  
ORGANISM: Rattus rattus  
TISSUE TYPE: Brain  
FEATURE:  
NAME/KEY: CDS

LOCATION: 400..4686  
OTHER INFORMATION:  
US-07-642-002-1

Query Match 2.7%; Score 57.2; DB 1; Length 5108;  
Best Local Similarity 48.0%; Pred. No. 7.9e-08;  
Matches 241; Conservative 0; Mismatches 243; Indels 18; Gaps 2;

QY 1588 TCCCACTTACAGATGACCCCTCATATCCCATCATTAATGTGGGTCCAGGAACCGCATTA 1647  
Db 4099 TTCACCTGCTCCGAACCCCGAGGTGCTTGCATGTTGGGCCAGGACATGCGATC 4158  
QY 1648 GCCCGTTTATTTGGTCTCTCAACATAGAGAGAAATCTCAAGAACACCCAGATGA 1707  
Db 4159 GCACCTTCGGAAGCTTGTGGCAACAGGAGC---AATTGACATCCACACAAAGGATG 4215  
QY 1708 AATTGGAGCAATGTGTTGTTTGGCTGACAGCATTAAGATAGGATATCTATTC 1767  
Db 4216 AATCCGTGCCCCATGTTCTGTGTTCCGGGTGTCACAAATCCAAAGATGATCATATTCAC 4275  
QY 1768 AGAAAGAGCTCAGACATTTCTTACGATGGATCTTAAGCATCTAAAGGTTCTTC 1827  
Db 4276 AGAGAGAGACCTTCAGAGCTAAGAACAGGCGTTTCAGAGAGCTGTACACTGCTAT 4335  
QY 1828 TCAGAGATGCTCTGTTGGGAGAGAGAGCCCGACGAAGTATGTACAGACACATC 1887  
Db 4336 TCCCGGGAAC-----GGACAGGCCAAGAAATATGTACAGAGACGTGCTG 4380  
QY 1888 CAGCTTCATGGCCAGAGTGGCGGAATCTCTCCAGAGAAAGGCCATATTATTTG 1947  
Db 4381 CAGGAACAGCTGGCTGTGATCTGTATACCGCGCTGGAAGAGCAAGAGGCGCATTTAT 4440  
QY 1948 TGTGAGATGCAAGAAATATGTGCCAAGATGTACATGTGCTTGTGCAATTAATTAAGC 2007  
Db 4441 GTCTGTGGGAGCGTTACCATGGCGCGCATGTCTCAAGAGCCATTCATTAATGACC 4500  
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QY 2068 AAAGAGGTGGAGTTGAAAGAACTAGAACAAATGAAGAACCCCTGGCCCTTTAAAGAGAA 2067  
Db 4561 AAGCGTACCTTCAGAGATATT 2089

## RESULT 12

US-09-627-216A-13

Sequence 13, Application US/09627216A  
Patent No. 6368837

## GENERAL INFORMATION:

APPLICANT: Sariastani, Sima F  
APPLICANT: Tang, Xiao-Song  
APPLICANT: Qi, Wei Wei  
APPLICANT: Vannelli, Todd  
APPLICANT: Galenby, Anthony  
TITLE OF INVENTION: Bioproduction of para-Hydroxycinnamic Acid  
FILE REFERENCE: BC1009 US NA  
CURRENT APPLICATION NUMBER: US/09/627,216A  
PRIOR FILING DATE: 2000-07-27  
PRIOR APPLICATION NUMBER: 60/147,719  
NUMBER OF SEQ ID NOS: 14  
SOFTWARE: Microsoft Office 97  
SEQ ID NO 13  
LENGTH: 1863  
TYPE: DNA  
ORGANISM: Helianthus tuberosus  
US-09-627-216A-13

Query Match 2.6%; Score 53.6; DB 4; Length 1863;  
Best Local Similarity 48.8%; Pred. No. 6e-07;  
Matches 254; Conservative 0; Mismatches 239; Indels 27; Gaps 3;







GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: July 29, 2003, 10:56:19 ; Search time 424.476 Seconds  
(without alignments)  
10177.082 Million cell updates/sec

Title: US-09-371-347A-45

Perfect score: 2094

Sequence: 1-atggagaggttcctctact.....ttcagatattgtcataa 2094

Scoring table:

IDENTITY\_NUC  
Gapop 10.0 , Gapept 1.0

Searched: 1439767 seqs, 1031500376 residues

Total number of hits satisfying chosen parameters: 2879534

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published\_Applications\_NA:\*

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17: /cgn2-6/ptodata/2/pubpna/US60\_PUBCOMB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2094	100.0	2094	US-09-371-347-45	Sequence 45, Appl
2	2081	99.4	2097	US-09-371-347-1	Sequence 1, Appl
3	2081	99.4	3259	US-09-371-347-24	Sequence 24, Appl
4	2079.4	99.3	2097	US-09-371-347-41	Sequence 41, Appl
5	2079.4	99.3	2097	US-09-371-347-43	Sequence 43, Appl
6	2063	98.5	2093	US-09-371-347-47	Sequence 47, Appl
7	174.4	8.3	2475	US-09-909-5678-38	Sequence 38, Appl
8	83.6	4.0	1872	US-09-917-800A-1351	Sequence 1351, Ap
9	83.6	4.0	2401	US-09-917-800A-1357	Sequence 1357, Ap
10	67.8	3.2	101	US-09-783-590-1364	Sequence 1364, Ap
11	62.4	3.0	298	US-09-294-093B-4842	Sequence 4842, Ap
12	58.2	2.8	230	US-09-923-876-2845	Sequence 2845, Ap
13	58.2	2.8	1863	US-09-873A-13	Sequence 13, Appl
14	56.2	2.7	2470	US-09-822-849A-278	Sequence 278, Appl
15	54.2	2.6	2136	US-09-938-842A-803	Sequence 803, Appl
16	51.4	2.5	2403	US-09-880-107-5039	Sequence 3039, Ap

17	50.6	2.4	4957	15	US-10-201-213-1	Sequence 1, Appl1
18	50.4	2.4	13508	8	US-08-781-966A-120	Sequence 120, App
19	50.2	2.4	1448	10	US-09-939-980-113	Sequence 113, App
20	48.8	2.3	411	10	US-09-925-299-440	Sequence 440, App
21	48.8	2.3	411	11	US-09-925-299-440	Sequence 440, App
22	47.6	2.3	1791	11	US-09-778-319-1	Sequence 1, Appl1
23	47.6	2.3	2088	11	US-10-128-714-7234	Sequence 7234, Ap
24	46	2.2	640681	15	US-09-790-988-1	Sequence 1, Appl1
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26	44	2.1	3845	15	US-10-128-714-6234	Sequence 234, App
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28	42.4	2.0	413	12	US-09-918-995-32917	Sequence 32917, A
29	42.4	2.0	534	12	US-09-918-995-9812	Sequence 9812, Ap
30	42.4	2.0	1254	11	US-09-989-920-10	Sequence 10, Appl
31	42.4	2.0	1845	15	US-10-128-714-1234	Sequence 1234, Ap
32	42.4	2.0	1845	15	US-10-128-714-2234	Sequence 2234, Ap
33	41.2	2.0	348	11	US-09-878-574-3001	Sequence 3001, Ap
34	40.6	1.9	382	10	US-09-956-004-78	Sequence 78, Appl
35	39.8	1.9	4056	15	US-10-156-761-2317	Sequence 2317, Ap
36	39.8	1.9	9025608	15	US-10-156-761-1	Sequence 1, Appl1
37	39.6	1.9	663	15	US-10-027-632-212141	Sequence 212141,
38	39.4	1.9	681	11	US-09-974-380-2079	Sequence 2079, Ap
39	39.2	1.9	396	12	US-09-918-995-4392	Sequence 4392, Ap
40	38.4	1.8	556	15	US-10-184-644-136	Sequence 136, App
41	38.4	1.8	556	15	US-10-184-634-136	Sequence 136, App
42	38.2	1.8	777	15	US-10-184-644-348	Sequence 348, App
43	38.2	1.8	777	15	US-10-184-634-348	Sequence 242, App
44	38	1.8	500	12	US-09-991-936-242	Sequence 242, App
45	37.8	1.8	1944	15	US-10-272-017A-4	Sequence 4, Appl1

## ALIGNMENTS

RESULT 1	US-09-371-347-45	Sequence 45, Application US/09371347	
		Publication No. US20030082676A1	
	GENERAL INFORMATION:		
	APPLICANT: Roy A. Gravel et al.		
	TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:		
	TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE		
	TITLE OF INVENTION: DEFECTS/CARDIOVASCULAR DISEASE, AND CANCER		
	FILE REFERENCE: 50004/003003		
	CURRENT APPLICATION NUMBER: US/09/371,347		
	CURRENT FILING DATE: 1999-08-10		
	PRIOR APPLICATION NUMBER: 60/071,622		
	PRIOR FILING DATE: 1998-01-16		
	PRIOR APPLICATION NUMBER: 09/232,028		
	PRIOR FILING DATE: 1999-01-15		
	NUMBER OF SEQ ID NOS: 51		
	SOFTWARE: FastSeq for Windows Version 4.0		
	SEQ ID NO 45		
	LENGTH: 2094		
	TYPE: DNA		
	ORGANISM: Homo sapiens		
	US-09-371-347-45		
Query Match	100.0%	Score 2094:	DB 12: Length 2094:
Best Local Similarity	100.0%	Pred. No. 0:	
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DB	61	GAATGTGAGCAAGCTGTGTACATGATGATTTTTCAGAGATCTTCACTGATTTAGTAA	120
QY	121	TCCGATAGTATGACCTTAATAACGCAACAGCTCTCTTGTGTTGTTGTTTCAACAG	180
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; Sequence 1, Application US/09371347  
; Publication No. US20030082676A1  
; GENERAL INFORMATION:  
; APPLICANT: Roy A. Gravel et al.  
; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE;  
; TITLE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER  
; FILE REFERENCE: 50004/003003  
; CURRENT APPLICATION NUMBER: US/09/371,347  
; CURRENT FILING DATE: 1999-08-10  
; PRIOR APPLICATION NUMBER: 60/071,622  
; PRIOR FILING DATE: 1998-01-16  
; PRIOR APPLICATION NUMBER: 09/232,028  
; PRIOR FILING DATE: 1999-01-15

NUMBER OF SEQ ID NOS: 51  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 1  
LENGTH: 2097  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-371-347-1

Query Match 99.4%: Score 2081; DB 12; Length 2097;  
Best Local Similarity 99.9%: Pred. No. 0;  
Matches 2094; Conservative 0; Mismatches 0; Indels 3; Gaps 1;

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DB 421 CCGTGGATTTGCTGACACTTGGCCAGCCCTCAGAAAGCATTTTAGGTCAAGAGAGACAA 480  
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DB 481 GAGAGATTAAGTGGGCGACCTCCGCTGGATCACCCTGATCCTTGAGAGACAGCCTTGTG 540  
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DB 1917 CCGCAAGATATGTACAGACAACTCCAGCTTCAATGCGCAGCAGGAGGCGAGATCTC 1977  
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QY 1978 CATGATGCCCTTGTGCAAAATAAAGCAAGAGTTGAGTTGAAAACTAGAACAAATG 2037  
DB 1978 CATGATGCCCTTGTGCAAAATAAAGCAAGAGTTGAGTTGAAAACTAGAACAAATG 2037

Db 1981 CATGATGCCCTTGTGCAATAATTAAGCAAGAGTTGGAGTTGAATAAAGCAATG 2040  
OY 2038 AAAACCTGGCCACTTTTAAAGAGAAAAAGCTACTCTTACAGATATTGGTCATTA 2094  
Db 2041 AAAACCTGGCCACTTTTAAAGAGAAAAAGCTACTCTTACAGATATTGGTCATTA 2097

RESULT 3  
US-09-371-347-24  
; Sequence 24, Application US/09371347  
; Publication No. US20030082676A1  
; GENERAL INFORMATION:  
; APPLICANT: Roy A. Gravel et al.  
; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE;  
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
; FILE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER  
; FILE REFERENCE: 50004/003003  
; CURRENT APPLICATION NUMBER: US/09/371,347  
; CURRENT FILING DATE: 1999-08-10  
; PRIOR APPLICATION NUMBER: 60/071,622  
; PRIOR FILING DATE: 1998-01-16  
; PRIOR APPLICATION NUMBER: 09/232,028  
; PRIOR FILING DATE: 1999-01-15  
; NUMBER OF SEQ ID NOS: 51  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 24  
; LENGTH: 3259  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-371-347-24

Query Match 99.4%; Score 2081; DB 12; Length 3259;  
Best Local Similarity 99.9%; Pred. No. 0;  
Matches 2094; Conservative 0; Mismatches 0; Indels 3; Gaps 1;

OY 1 ATGAGAGAGTTTCTTCTTCTATATGCTACACAGCAGGAGGCAAGGCCATCGCAGAA 60  
Db 80 ATGAGAGAGTTTCTTCTTCTATATGCTACACAGCAGGAGGCAAGGCCATCGCAGAA 139  
OY 61 GAAATGTGTAGCAAGCTGTGTACATGATTTTCTGAGATCTTCACTGATTTAGTAA 120  
Db 140 GAAATGTGTAGCAAGCTGTGTACATGATTTTCTGAGATCTTCACTGATTTAGTAA 199  
OY 121 TCCGATAGATATGACCTTAAACCGAAACAGCTCTCTTGTGTGTGTGTTCTACACAG 180  
Db 200 TCCGATAGATATGACCTTAAACCGAAACAGCTCTCTTGTGTGTGTGTTCTACACAG 259  
OY 181 GGCACCGGAGACCCACCGGACAGCCCGCAAGTTTGTAAAGAAATACAGACCAACA 240  
Db 260 GGCACCGGAGACCCACCGGACAGCCCGCAAGTTTGTAAAGAAATACAGACCAACA 319  
OY 241 CTGCCGGTGTATTTCTTGTCTCACCCTGCGGTATGGGTACTGGGCTCGGTGATTACAA 300  
Db 320 CTGCCGGTGTATTTCTTGTCTCACCCTGCGGTATGGGTACTGGGCTCGGTGATTACAA 379  
OY 301 TACACCTACTTTTGCATGTGGGGGAAGATAATTGATAACAGACTTCAAGAGCTTGAGCC 360  
Db 380 TACACCTACTTTTGCATGTGGGGGAAGATAATTGATAACAGACTTCAAGAGCTTGAGCC 439  
OY 361 CGGCATTTCTATGACACTGAGACATGACATGATCTGTAGTTTGAACCTTGTGGTTGAG 420  
Db 440 CGGCATTTCTATGACACTGAGACATGACATGATCTGTAGTTTGAACCTTGTGGTTGAG 499  
OY 421 CCGTGATTTGTGCTGCTGCGCAGCCCTCGAAGAAAGCAATTTAGTGCAAGAGAGAA 480  
Db 500 CCGTGATTTGTGCTGCTGCGCAGCCCTCGAAGAAAGCAATTTAGTGCAAGAGAGAA 559  
OY 481 GAGAGATATGAGGCGCACTCCGCTGGGATCACCCTGCTTGGAGACAGACCTTGTG 540  
Db 560 GAGAGATATGAGGCGCACTCCGCTGGGATCACCCTGCTTGGAGACAGACCTTGTG 619  
OY 541 AAGTCAGAGCTGTACACATTTGAATCTCAAGTCAAGCTTGTGAGATTCGATGATTACAG 600

Db 620 AAGTCAGAGCTGTACACATTTGAATCTCAAGTCAAGCTTGTGAGATTCGATGATTACAG 679  
OY 601 AGAAGAGATTTCTGAGCTTTTGAAGCAAAATGAGAGAACAGACCAATTCATTTGTGTA 660  
Db 680 AGAAGAGATTTCTGAGCTTTTGAAGCAAAATGAGAGAACAGACCAATTCATTTGTGTA 739  
OY 661 ATTGAAGCTTTGAGTCTTCACTTACCCGTTGGATGACCCCACTCTCAAGACCTCTGTG 720  
Db 740 ATTGAAGCTTTGAGTCTTCACTTACCCGTTGGATGACCCCACTCTCTGTG 799  
OY 721 AATATCTCGTTTATACCCCAAGATATTTTACAGGTATCTGCAGAGATCTCTTGGCCAG 780  
Db 800 AATATCTCGTTTATACCCCAAGATATTTTACAGGTATCTGCAGAGATCTCTTGGCCAG 859  
OY 781 GAGGAAGCCAGATCTGTGCTGACCTTACAGATCCAGTTTTCAGAGCTCAATTTCAAG 840  
Db 860 GAGGAAGCCAGATCTGTGCTGACCTTACAGATCCAGTTTTCAGAGCTCAATTTCAAG 919  
OY 841 GCAGTTCAACTTACTACGAATGATGCCATTAACCAACCACTCTGCTGTGAATTTGGACAT 900  
Db 920 GCAGTTCAACTTACTACGAATGATGCCATTAACCAACCACTCTGCTGTGAATTTGGACAT 979  
OY 901 TCAATACAGACTTTTCTTATCAGCTGAGATGCTTACAGCTGATCTGCCCTAACAGT 960  
Db 980 TCAATACAGACTTTTCTTATCAGCTGAGATGCTTACAGCTGATCTGCCCTAACAGT 1039  
OY 961 GATTCTGAGTACAAAGCTTACTCAAGACTGCAAGCTTGAAGATTAAGAGACACTGCG 1020  
Db 1040 GATTCTGAGTACAAAGCTTACTCAAGACTGCAAGCTTGAAGATTAAGAGACACTGCG 1099  
OY 1021 GTCCCTTTGAATAATTAAGGACAGACCAAGAAAGAGAGCTTACCTTACCCAGATTA 1080  
Db 1100 GTCCCTTTGAATAATTAAGGACAGACCAAGAAAGAGAGCTTACCTTACCCAGATTA 1159  
OY 1081 CCTGCGGATGTTCTCTCAGCTTATTTTACCTGTGTCTTGAATCCAGCAATTCCT 1140  
Db 1160 CCTGCGGATGTTCTCTCAGCTTATTTTACCTGTGTCTTGAATCCAGCAATTCCT 1219  
OY 1141 AAAAAGCATTTTCCGAGCCCTTGTGACATATACAGTACAGTCTGAAAGACGCAAG 1200  
Db 1220 AAAAAGCATTTTCCGAGCCCTTGTGACATATACAGTACAGTCTGAAAGACGCAAG 1279  
OY 1201 CTACAGAGCTGTGACATTAACAGAGGCGACCCCATTTTACCCGCTTGTACAGATGCG 1260  
Db 1280 CTACAGAGCTGTGACATTAACAGAGGCGACCCCATTTTACCCGCTTGTACAGATGCG 1339  
OY 1261 TGTGCTCTCTTGTGATCTCTCTCTGCTTCCCTTCTTCCAGCCACACTAGTCTC 1320  
Db 1340 TGTGCTCTCTTGTGATCTCTCTCTGCTTCCCTTCTTCCAGCCACACTAGTCTC 1399  
OY 1321 CTGCTGCAACATTTCTTAACTTCAACCCAGACCATATTTGTGTCAGAGTCAAGTTTA 1380  
Db 1400 CTGCTGCAACATTTCTTAACTTCAACCCAGACCATATTTGTGTCAGAGTCAAGTTTA 1459  
OY 1381 TTTCAACCCAGAGAAAGCTCATTTTGTCTTCAACATTTGTGAATTTGTCTACTGACCA 1440  
Db 1460 TTTCAACCCAGAGAAAGCTCATTTTGTCTTCAACATTTGTGAATTTGTCTACTGACCA 1519  
OY 1441 ACAGAGCTTCTGCGAAGGAGATATGACAGCTGCGCTGCTGTTGTTGTTCAAGTT 1500  
Db 1520 ACAGAGCTTCTGCGAAGGAGATATGACAGCTGCGCTGCTGTTGTTGTTCAAGTT 1579  
OY 1501 CTTCAAGCAACATATCATGCTTCCATGAGACAGCGGGAAGAGCCCTGCTCTTAACATA 1560  
Db 1580 CTTCAAGCAACATATCATGCTTCCATGAGACAGCGGGAAGAGCCCTGCTCTTAACATA 1639  
OY 1561 TCCATCTCTCTTCAACAAATTTCTTCACTTACAGATGACCCCTCAATCCCATC 1620  
Db 1640 TCCATCTCTCTTCAACAAATTTCTTCACTTACAGATGACCCCTCAATCCCATC 1699  
OY 1621 ATATATGTTGCTCAGAGAACCGGCATATGCCCCGTTTATTTGGTCTCTTAACAATAGAG 1680  
Db 1700 ATATATGTTGCTCAGAGAACCGGCATATGCCCCGTTTATTTGGTCTCTTAACAATAGAG 1759





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OY 1321 CTGCTCGAAGCATCTTCTAACTCAACCCAGACCATATTCGTGTCAGCTCAAGTTTA 1380
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DB 1321 CTGCTCGAAGCATCTTCTAACTCAACCCAGACCATATTCGTGTCAGCTCAAGTTTA 1380
OY 1381 TTTCACCCAGGAAGTCTCATTTTGTCTTCAACATTGTGGAATTTCTGTCTACTGCCACA 1440
    |||||||
DB 1381 TTTCACCCAGGAAGTCTCATTTTGTCTTCAACATTGTGGAATTTCTGTCTACTGCCACA 1440
OY 1441 ACAGAGGTTCTGCGAAGGAGTATGTACAGGCTGGGCGCTTGTGGTCTGCTCAGT 1500
    |||||||
DB 1441 ACAGAGGTTCTGCGAAGGAGTATGTACAGGCTGGGCGCTTGTGGTCTGCTCAGT 1500
OY 1501 CTTCAGCCAAACATCATGATGCCATGAAGACAGCGGAAAGCCCTGGCTCTCAAGATA 1560
    |||||||
DB 1501 CTTCAGCCAAACATCATGATGCCATGAAGACAGCGGAAAGCCCTGGCTCTCAAGATA 1560
OY 1561 TCCATCTCTCCCGAACAACAAATTTCTTCCACTTACAGAGTACCCCTCAATCCCATC 1620
    |||||||
DB 1561 TCCATCTCTCCCGAACAACAAATTTCTTCCACTTACAGAGTACCCCTCAATCCCATC 1620
OY 1621 ATATGTTGGTCTCGAAGACCGGATAGCCCGCTTATTTGGGTTCTCAACATAGAGAG 1680
    |||||||
DB 1621 ATATGTTGGTCTCGAAGACCGGATAGCCCGCTTATTTGGGTTCTCAACATAGAGAG 1680
OY 1681 AAATCTCAAGAACACACCAGATGGAATTTTGGAGCAATGTG--GTTTTTGGCTGC 1737
    |||||||
DB 1681 AAATCTCAAGAACACACCAGATGGAATTTTGGAGCAATGTG--GTTTTTGGCTGC 1740
OY 1738 AGGCTAAGGATAGGAGTTATCTATTCAGAAAGAGCTCAGACATTTCTTAAAGATGG 1797
    |||||||
DB 1741 AGGCTAAGGATAGGAGTTATCTATTCAGAAAGAGCTCAGACATTTCTTAAAGATGG 1800
OY 1798 ATCTTAACATCTTAAGGTTTCTTCTCAAGAGATGCTCCGTTGGGAGAGAGAACCC 1857
    |||||||
DB 1801 ATCTTAACATCTTAAGGTTTCTTCTCAAGAGATGCTCCGTTGGGAGAGAGAACCC 1860
OY 1858 CCAGCAAAAGTATGTCAAGACACATCCAGCTTCAATGGCCAGAGTGCGCAAGATCTC 1917
    |||||||
DB 1861 CCAGCAAAAGTATGTCAAGACACATCCAGCTTCAATGGCCAGAGTGCGCAAGATCTC 1920
OY 1918 CTCCGAGGAGAGCGGCATATTTATGTGTGAGATGCAAGAAATATGCGCAAGATGTA 1977
    |||||||
DB 1921 CTCCGAGGAGAGCGGCATATTTATGTGTGAGATGCAAGAAATATGCGCAAGATGTA 1980
OY 1978 CATGATGCCCTTGTGCAATATATAGCAAGAGGTTGAGTTGAAAACTAGAACCAATG 2037
    |||||||
DB 1981 CATGATGCCCTTGTGCAATATATAGCAAGAGGTTGAGTTGAAAACTAGAACCAATG 2040
OY 2038 AAAACCCCTGGCCACTTTTAAAGAGAAAGCGTACCTTCAGGATATTTGGTCATTA 2094
    |||||||
DB 2041 AAAACCCCTGGCCACTTTTAAAGAGAAAGCGTACCTTCAGGATATTTGGTCATTA 2097

RESULT 5
US-09-371-347-43
: Sequence 43, Application US/09371347
: Publication No. US20030082676A1
: GENERAL INFORMATION:
: APPLICANT: Roy A. Gravel et al.
: TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCED
: TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE
: FILE REFERENCE: 50004/003003
: CURRENT FILING DATE: 1999-08-10
: PRIOR FILING DATE: 1998-01-16
: PRIOR APPLICATION NUMBER: 60/071,622
: PRIOR FILING DATE: 1998-01-16
: PRIOR APPLICATION NUMBER: 09/232,028
: NUMBER OF SEQ ID NOS: 51
: SOFTWARE: FastSeq for Windows Version 4.0
: SEQ ID NO 43
: LENGTH: 2097

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: TYPE: DNA
: ORGANISM: Homo sapiens
US-09-371-347-43
Query Match      99.3%; Score 2079.4; DB 12; Length 2097;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 2093; Conservative 0; Mismatches 1; Indels 3; Gaps 1;

OY 1 ATGAGAGGTTTCTCTACTATATCTTACACAGCAGGAGGAGCAAGGCCATCCGACAA 60
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DB 1 ATGAGAGGTTTCTCTACTATATCTTACACAGCAGGAGGAGCAAGGCCATCCGACAA 60
OY 61 GAAATGTGTAGACAAGCTGTGTACATGATTTTGTGAGATCTTCACTGATATTAGTAA 120
    |||||||
DB 61 GAAATGTGTAGACAAGCTGTGTACATGATTTTGTGAGATCTTCACTGATATTAGTAA 120
OY 121 TCCGATTAAGTATGACCTTAAACCGAAGACGCTCTTGTGTGTGTGTTCTTACACG 180
    |||||||
DB 121 TCCGATTAAGTATGACCTTAAACCGAAGACGCTCTTGTGTGTGTGTTCTTACACG 180
OY 181 GGCACCGGAGACCCACCCGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240
    |||||||
DB 181 GGCACCGGAGACCCACCCGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240
OY 241 CTGCCGGTTGATTTCTTGTCTACCTGGGATGAGGTTACTGGTCTCGTGTATCAGAA 300
    |||||||
DB 241 CTGCCGGTTGATTTCTTGTCTACCTGGGATGAGGTTACTGGTCTCGTGTATCAGAA 300
OY 301 TACACCTACTTTTGGCAATGGGGGGAATATTTGATTAACGACTTCAAGAGCTTGGAGCC 360
    |||||||
DB 301 TACACCTACTTTTGGCAATGGGGGGAATATTTGATTAACGACTTCAAGAGCTTGGAGCC 360
OY 361 CGGATTTCTATGACACTGACATGACATGACATGATGATTTGATTTGAAGTTGTGGTTAG 420
    |||||||
DB 361 CGGATTTCTATGACACTGACATGACATGACATGATGATTTGATTTGAAGTTGTGGTTAG 420
OY 421 CCGTGATTTGCTGAGCTGTGGCAGCCCTCAGAAAGCAATTTAGTTCAGCAGAGGACAA 480
    |||||||
DB 421 CCGTGATTTGCTGAGCTGTGGCAGCCCTCAGAAAGCAATTTAGTTCAGCAGAGGACAA 480
OY 481 GAGGAGATTAAGTGGCGCACTCCCGGTGCATCCTGTGATCTTGTAGAGTTCAGAG 540
    |||||||
DB 481 GAGGAGATTAAGTGGCGCACTCCCGGTGCATCCTGTGATCTTGTAGAGTTCAGAG 540
OY 541 AAGTACAGAGCTGACATGATTAATCTCAAGTCGAGCTTGTGAGATTTGATTTGATTTGAT 600
    |||||||
DB 541 AAGTACAGAGCTGACATGATTAATCTCAAGTCGAGCTTGTGAGATTTGATTTGATTTGAT 600
OY 601 AGAAGAGATTTGAGGTTTGAAGCAAAATGCAAGTGAACAGCAACCAATCCAAATGTTGTA 660
    |||||||
DB 601 AGAAGAGATTTGAGGTTTGAAGCAAAATGCAAGTGAACAGCAACCAATCCAAATGTTGTA 660
OY 661 ATGGAAGACTTTGAGTCTCTACCTTACCCGTTGCGTACCCCACTCTCAAGCCTCTGTG 720
    |||||||
DB 661 ATGGAAGACTTTGAGTCTCTACCTTACCCGTTGCGTACCCCACTCTCTCAAGCCTCTGTG 720
OY 721 AATATCTCTGTTTACCCCAAGATATTTACAGTACATCTGAGAGATCTCTTGGCCAG 780
    |||||||
DB 721 AATATCTCTGTTTACCCCAAGATATTTACAGTACATCTGAGAGATCTCTTGGCCAG 780
OY 781 GAGGAAGCCCAAGTATCTGTGACTTCAGCAGATCCAGTTTTCAGAGTCCCAATTTCAAG 840
    |||||||
DB 781 GAGGAAGCCCAAGTATCTGTGACTTCAGCAGATCCAGTTTTCAGAGTCCCAATTTCAAG 840
OY 841 GCAGTTCAACTTACAGATATGATGCCATTAACCACTCTGCTGTGATTTGGACATT 900
    |||||||
DB 841 GCAGTTCAACTTACAGATATGATGCCATTAACCACTCTGCTGTGATTTGGACATT 900
OY 901 TCAATATACAGACTTTTCTATACAGCTGTGAGATGCTTCAAGGATTTGCTTCAAGCT 960
    |||||||
DB 901 TCAATATACAGACTTTTCTATACAGCTGTGAGATGCTTCAAGGATTTGCTTCAAGCT 960
OY 961 GATTCTGAGGTACAAAGCTTACTCCAAAGACTGACGTTTGAAGATTAAGAGAGACACTGC 1020
    |||||||

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Db 961 GATTCGAGGTACAAAGCTACTCCAAAGACTGACAGCTTGAAGATAAAAGAGAGCACTGC 1020  
 Oy 1021 GTCCCTTTGAAATATAAGGCACACAAAGAAAGAGACCTTACCACGACATATA 1080  
 Db 1022 GTCCCTTTGAAATATAAGGCACACAAAGAAAGAGACCTTACCACGACATATA 1080  
 Oy 1081 CCTGGGGAGATGTTCTCTCCAGTTCATTTTACCTGGTGTCTGAAATCCGACAAATTCCT 1140  
 Db 1081 CCTGGGGAGATGTTCTCTCCAGTTCATTTTACCTGGTGTCTGAAATCCGACAAATTCCT 1140  
 Oy 1141 AAAAAGGCAATTTTGGGAGCCCTTGTGACATAACAGTAGACAGTGTGAAAAAGCGCAGG 1200  
 Db 1141 AAAAAGGCAATTTTGGGAGCCCTTGTGACATAACAGTAGACAGTGTGAAAAAGCGCAGG 1200  
 Oy 1201 CACAGGAGCTGTGACAGTAACAGAGGGAGCCGATATAGCCGCTTGTAGAGATGCC 1260  
 Db 1201 CACAGGAGCTGTGACAGTAACAGAGGGAGCCGATATAGCCGCTTGTAGAGATGCC 1260  
 Oy 1261 TGTGCTGCTTGTGGATCTCCTCCGCTTCCCTTCCCTTGTGACAGCAGCAGTGTCTC 1320  
 Db 1261 TGTGCTGCTTGTGGATCTCCTCCGCTTCCCTTCCCTTGTGACAGCAGCAGTGTCTC 1320  
 Oy 1321 CTGCTCGAACAATCTTCTAACTCAACCCAGACCATATTCGTTGCAAGTCAAGTTTA 1380  
 Db 1321 CTGCTCGAACAATCTTCTAACTCAACCCAGACCATATTCGTTGCAAGTCAAGTTTA 1380  
 Oy 1381 TTTTACCCGAGAAAGCTCATTTTGTCTTCAACATTTGTGAAATTTCTGCTACTGCCACA 1440  
 Db 1381 TTTTACCCGAGAAAGCTCATTTTGTCTTCAACATTTGTGAAATTTCTGCTACTGCCACA 1440  
 Oy 1441 ACAGAGGTTCTCGAAGGAGATGTATGTACAGGCTGGCTGGCTTGTGTGCTTGCCTCAGTT 1500  
 Db 1441 ACAGAGGTTCTCGAAGGAGATGTATGTACAGGCTGGCTGGCTTGTGTGCTTGCCTCAGTT 1500  
 Oy 1501 CTTCAGCCAAACATATCATGATCCATGAAGACAGCGGAGAAAGCCCTGCTCTAAGATA 1560  
 Db 1501 CTTCAGCCAAACATATCATGATCCATGAAGACAGCGGAGAAAGCCCTGCTCTAAGATA 1560  
 Oy 1561 TCCATCTCTCTCGAAGCAAAATTTCTTCACTTACAGATGACCCCTCAATCCCATTC 1620  
 Db 1561 TCCATCTCTCTCGAAGCAAAATTTCTTCACTTACAGATGACCCCTCAATCCCATTC 1620  
 Oy 1621 ATAAATGTTGGTTCAGGAACCGGATAGCCCGTTTATTTGGTTCCTACACATAGAGAG 1680  
 Db 1621 ATAAATGTTGGTTCAGGAACCGGATAGCCCGTTTATTTGGTTCCTACACATAGAGAG 1680  
 Oy 1681 AAATCTCAAGAACACACCCAGATGGAATTTTGGAGCAATGTG--GTTTTTGGCTGC 1737  
 Db 1681 AAATCTCAAGAACACACCCAGATGGAATTTTGGAGCAATGTG--GTTTTTGGCTGC 1737  
 Oy 1738 AAGCATTAAGGATATGATATTCATTCAGAAAAGACTCAGACATTTCTTAAAGATGGG 1797  
 Db 1741 AAGCATTAAGGATATGATATTCATTCAGAAAAGACTCAGACATTTCTTAAAGATGGG 1800  
 Oy 1798 ATCTTAATCATCTAAAGGTTTCTCTCTCAGAGATGCTCTGTTGGGAGAGAGAAAGCC 1857  
 Db 1801 ATCTTAATCATCTAAAGGTTTCTCTCTCAGAGATGCTCTGTTGGGAGAGAGAAAGCC 1860  
 Oy 1858 CACGCAAAATATGTACAGACACATCAGCTTCATGSCCAGCAGAGGTGCGAAGATCCMC 1917  
 Db 1861 CACGCAAAATATGTACAGACACATCAGCTTCATGSCCAGCAGAGGTGCGAAGATCCMC 1920  
 Oy 1918 CTCCAGGAGAGAGGCGCATTTTATGTGTGTGAGATGCAAAAGATTTGGCCAAAGATGTA 1977  
 Db 1921 CTCCAGGAGAGAGGCGCATTTTATGTGTGTGAGATGCAAAAGATTTGGCCAAAGATGTA 1980  
 Oy 1978 CATGATGCCCTTGTGCAAAATATAGCAAAAGAGTTGAGTTGAAAAACTAGAGCAATG 2037  
 Db 1981 CATGATGCCCTTGTGCAAAATATAGCAAAAGAGTTGAGTTGAAAAACTAGAGCAATG 2040  
 Oy 2038 AAAACCTTGCCCACTTTAAAGAGAAAAAGCTTACCTTCAGAGATTTTGGTCAATA 2094

Db 2041 AAAACCTTGCCCACTTTAAAGAGAAAAAGCTTACCTTCAGAGATTTTGGTCAATA 2097  
 RESULT 6  
 US-09-371-347-47  
 ; Sequence 47, Application US/09371347  
 ; Publication No. US20030082676A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Roy A. Gravel et al.  
 ; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE.  
 ; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
 ; FILE REFERENCE: 50004/003003  
 ; CURRENT APPLICATION NUMBER: US/09/371,347  
 ; PRIOR FILING DATE: 1999-08-10  
 ; PRIOR FILING DATE: 1998-01-16  
 ; PRIOR APPLICATION NUMBER: 09/232,028  
 ; PRIOR FILING DATE: 1999-01-15  
 ; NUMBER OF SEQ ID NOS: 51  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 47  
 ; TYPE: DNA  
 ; ORGANISM: Homo sapiens  
 US-09-371-347-47

Query Match 98.5%; Score 2063; DB 12; Length 2093;  
 Best Local Similarity 99.7%; Pred. No. 0;  
 Matches 2090; Conservative 0; Mismatches 0; Indels 7; Gaps 2;

Oy 1 ATGAGAGGTTTCTGTACTATATGCTACACAGCAGGAGGACGCAAAAGGCCATTCGACAA 60  
 Db 1 ATGAGAGGTTTCTGTACTATATGCTACACAGCAGGAGGACGCAAAAGGCCATTCGACAA 60  
 Oy 61 GAAATGTGTGACCAAGCTGTGTACATGATGATTTTCTGAGATCTTCACTGTATTAGTGA 120  
 Db 61 GAAATGTGTGACCAAGCTGTGTACATGATGATTTTCTGAGATCTTCACTGTATTAGTGA 120  
 Oy 121 TCCGATTAATGACTTAACAAACCGAAGACGCTCCCTGTGTGTGTGTCTTCTTCCACAG 180  
 Db 121 TCCGATTAATGACTTAACAAACCGAAGACGCTCCCTGTGTGTGTGTGTCTTCTTCCACAG 180  
 Oy 181 GGCACCGGAGACCCACCCGACACAGCCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240  
 Db 181 GGCACCGGAGACCCACCCGACACAGCCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240  
 Oy 241 CTGCGGTTGATTTCTTCTCTCAGCTGCGGTATGGGTACTGGGTCTGCGGTATTCAGAA 300  
 Db 241 CTGCGGTTGATTTCTTCTCTCAGCTGCGGTATGGGTACTGGGTCTGCGGTATTCAGAA 300  
 Oy 301 TACACTACTTTTGGCAATGGGGGAGAAATTTGATTAACGACTTCAAGACTTGGAGCC 360  
 Db 301 TACACTACTTTTGGCAATGGGGGAGAAATTTGATTAACGACTTCAAGACTTGGAGCC 360  
 Oy 361 CGCATTTTATAGACACTGACATGCAATGCACTGTGTAGACTTGGTTGAGTGGAG 420  
 Db 361 CGCATTTTATAGACACTGACATGCAATGCACTGTGTAGACTTGGTTGAGTGGAG 420  
 Oy 421 CCGTGATTTCTGAGACTGTGCGCAGCCCTCAGAAAGCAATTTTAAAGTCAAGAGAGACAA 480  
 Db 421 CCGTGATTTCTGAGACTGTGCGCAGCCCTCAGAAAGCAATTTTAAAGTCAAGAGAGACAA 480  
 Oy 481 GAGGAGATTAAGTGGGCACTCCCGTGGGATCATCTGATCTCTTGTAGAGACAGACTTGG 540  
 Db 481 GAGGAGATTAAGTGGGCACTCCCGTGGGATCATCTGATCTCTTGTAGAGACAGACTTGG 540  
 Oy 541 AAGTCAGACTCTACACATTAATCAATCAAGTGCAGCTTCTGAGATTTCATGATTCAGGA 600  
 Db 541 AAGTCAGACTCTACACATTAATCAATCAAGTGCAGCTTCTGAGATTTCATGATTCAGGA 600  
 Oy 601 AGAAGGATTTGAGGTTTGAAGCAAAATGCAAGTGAACAGCAACCAATTCATATGTTGTA 660



Db 181 TTCG 184

RESULT 8  
US-09-917-800A-1351

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Sequence 1351, Application US/09917800A
Patent No. US20020119462A1
GENERAL INFORMATION:
APPLICANT: Mendrick, Donna
APPLICANT: Porter, Mark
APPLICANT: Johnson, Kory
APPLICANT: Castle, Arthur
APPLICANT: Elashoff, Michael
APPLICANT: Gene Logic, Inc.
TITLE OF INVENTION: Molecular Toxicology Modeling
FILE REFERENCE: 44921-5038-US
CURRENT APPLICATION NUMBER: US/09/917,800A
CURRENT FILING DATE: 2001-07-31
PRIOR APPLICATION NUMBER: US 60/222,040
PRIOR FILING DATE: 2000-07-31
PRIOR APPLICATION NUMBER: US 60/222,880
PRIOR FILING DATE: 2000-11-02
PRIOR APPLICATION NUMBER: US 60/290,029
PRIOR FILING DATE: 2001-05-11
PRIOR APPLICATION NUMBER: US 60/290,645
PRIOR FILING DATE: 2001-05-15
PRIOR APPLICATION NUMBER: US 60/292,336
PRIOR FILING DATE: 2001-05-22
PRIOR APPLICATION NUMBER: US 60/295,798
PRIOR FILING DATE: 2001-06-06
PRIOR APPLICATION NUMBER: US 60/297,457
PRIOR FILING DATE: 2001-06-13
PRIOR APPLICATION NUMBER: US 60/298,884
PRIOR FILING DATE: 2001-06-19
PRIOR APPLICATION NUMBER: US 60/303,459
PRIOR FILING DATE: 2001-07-09
NUMBER OF SEQ ID NOS: 1740
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 1351
LENGTH: 1872
TYPE: DNA
ORGANISM: Rattus norvegicus
FEATURE:
OTHER INFORMATION: Genbank Accession No. US20020119462A1 E01524
US-09-917-800A-1351

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Query Match	4.08;	Score 83.6;	DB 11;	Length 1872;
Best Local Similarity	55.48;	Pred. No. 1.7e-15;		
Matches 217; Conservative	0;	Mismatches 154;	Indels 21;	Gaps 2

QY	1588	TTCCACTTACCAATGAGCCCTCAATCCCATCTAATATGTTGGTTCAGAACCGGCATG	164
Db	1387	TTCCGCTTGCCCTTTCACAGTCCACCAACACTCTTCATCATGTTGGGCCCGGCCTTGGGATT	144
QY	1648	GCCTCGTTTATTTGGGTTCTCTACAACATAGAGAGAAATCTCAAGAACCAACCCAGATGGA	1707
Db	1447	GCCTCTTTCATGGGCTTCATCCAGGAACGACTTGGCTTCGAGACCAAGCGAAGAGGTG	1500
QY	1708	AATTTTGGAGCAATGTGGTTTTTTTGGCTGCAGGCATTAAGATAGGGAATTATCTATTGAGA	1767
Db	1507	GGA---GAGAGCGCTATACCTATATGAGGCGCGCGCTGGGATGAGAGCATCTGTCAAGGT	1563
QY	1768	AAAGAGCTCAGACATTTCCCTTAAGCATGTGGGATCTTAATCATCTAAAGTTTCCTTTGCA	182
Db	1564	GAAAGCTAGGCCCGCTTCCACAAAGGACGGTGCCTCCAGCGACCTTAATATGTGGCTTTTCC	1622
QY	1828	AGAGATGCTCTGTGTTGGGAGAGGAGAACCCACAGCAAAATATGTATCAAGACAAACATCCAG	1887
Db	1624	CG-----GGAGCAGGCCCAACAAGTCTATGTCACAGACTTCTGGAAG	1665
QY	1888	CTTCATGGCCACGACGTGTGGCAAGATCTCTCCACGGAGAACGGCCATATTTATGTGTGTT	1944

Db 1666 AGAACAAGGGAACACCTCTGTGGAAAGCTGATCCACGAGGGGCTGCCACATCTATGTGTGC 1725  
 QY 1948 GGAGATGCAAAGAAATATGTGGCCCAAGATGTACA 1979  
 11 11111 1111111111 1111 11  
 Db 1726 GGGGATGCTCGAAATATGTGGCCCAAGATGTGCA 1757

RESULT 9  
US-09-917-800A-1397

```

1      Sequence 1397, Application US/09917800A
2      Patent No. US20020119462A1
3
4      GENERAL INFORMATION:
5      APPLICANT: Mendlick, Donna
6      APPLICANT: Porter, Mark
7      APPLICANT: Johnson, Kory
8      APPLICANT: Castle, Arthur
9      APPLICANT: Elashoff, Michael
10     APPLICANT: Gene Logic, Inc.
11     TITLE OF INVENTION: Molecular Toxicology Modeling
12     FILE REFERENCE: 44921-5038-US
13     CURRENT APPLICATION NUMBER: US/09/917,800A
14     CURRENT FILING DATE: 2001-07-31
15     PRIOR APPLICATION NUMBER: US 60/222,040
16     PRIOR FILING DATE: 2000-07-31
17     PRIOR APPLICATION NUMBER: US 60/222,880
18     PRIOR FILING DATE: 2000-11-02
19     PRIOR APPLICATION NUMBER: US 60/290,029
20     PRIOR FILING DATE: 2001-05-11
21     PRIOR APPLICATION NUMBER: US 60/290,645
22     PRIOR FILING DATE: 2001-05-15
23     PRIOR APPLICATION NUMBER: US 60/292,336
24     PRIOR FILING DATE: 2001-05-22
25     PRIOR APPLICATION NUMBER: US 60/295,798
26     PRIOR FILING DATE: 2001-06-06
27     PRIOR APPLICATION NUMBER: US 60/297,457
28     PRIOR FILING DATE: 2001-06-13
29     PRIOR APPLICATION NUMBER: US 60/298,884
30     PRIOR FILING DATE: 2001-06-19
31     PRIOR APPLICATION NUMBER: US 60/303,459
32     PRIOR FILING DATE: 2001-07-09
33     NUMBER OF SEQ ID NOS: 1740
34     SOFTWARE: Patentin Ver. 2.1
35     SEQ ID NO 1397
36
37     LENGTH: 2401
38
39     TYPE: DNA
40     ORGANISM: Rattus norvegicus
41
42     FEATURE:
43
44     OTHER INFORMATION: Genbank Accession No. US20020119462A1 M10068
45     US-09-917-800A-1397

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Query Match	4.08;	Score 83.6;	DB 11;	Length 2401;
Best Local Similarity	55.48;	Pred. NO. 2e-15;		
Matches 217; Conservative	0;	Mismatches 154;	Indels 21;	Gaps 2;

Oy	1588	TTTCACATACAGATGACCCCTCAATATCCCATCATATGATGGGTCCAGAAACGGGATTA	1647
Db	1556	TTTCGGCTTGCCCTTTCAGATGCCACACACACTGTCATCATATGGTGGCCCCGGACATCGGGATT	1615
Oy	1648	GCCCCGTTTATTTGGGTGTTCTCAACATATGAGAGAAATCTCAAGAAACAAACACCCAGATGGA	1707
Db	1616	GCCCCGTTTCATATGGGCTTCATCCAGGAACGAGCTGGCTTCGAGAGACAAAGCAAGGAGGTG	1672
Oy	1708	AATTTTGGAGCAATGTGTTTTTTTGGCTGCAGGCGATTAAGGATTAAGGATTAATCTATTCA	1767
Db	1676	GGA---GAGAGCGTCGTATTACTATATGGCTGCGGGCGCTGGATGAGAGACTATCTGTAACTGT	1733
Oy	1768	AAAGAGCGACACATTTCTTAAGCATATGGATATCTTAATCATCTTAAAGTTTCTCTCTCA	1827
Db	1733	GAAAGCGTAGCGCCGCTTCACAAAGAGGGTGGCCCTCAGCAGCTTAATATGTGGCTTTTCC	1792
Oy	1828	AGAGATGCTCTGTTGGGGAGGAGAGAACCCCGAACAAGTATGTACAAAGACAAATCCAG	1887
Db	1793	CG-----GGACACAGGCCCAACAAGTCTATGTGTCACACACCTTCTGAAG	1834



Db 62 TTGAGAGCTTCTTGCAAGAAAGTTAGCATTAACAATCTGGGAGCAATGGGCACT 121  
Qy 1714 GGACCATGTGTTTTTGGCTGCAGCATAGGATAGGATATCTATTGAGAAAG 1773  
Db 122 T--CAATCCTTTCTTTGGATGCGAAGCAAGCTAATATGACTATATGAGATGAG 178  
Qy 1774 CTGACATTTTCTTAAGCATGATCTTAACATCATCAAGGTTCTCTCT 1825  
Db 179 TTGCATACTTCTTTGANGAGGGCGCTTCTGAGCTAATTTGTCATTCT 230

RESULT 13  
US-09-765-873A-13  
Sequence 13, Application US/09765873A  
Patent No. US20010053847A1  
GENERAL INFORMATION:  
APPLICANT: Tang, Xiao-Song  
TITLE OF INVENTION: BIOPRODUCTION OF PARA-HYDROXYCINNAMIC ACID  
FILE REFERENCE: BC1009 US CIP  
CURRENT APPLICATION NUMBER: US/09/765,873A  
CURRENT FILING DATE: 2001-01-19  
PRIOR APPLICATION NUMBER: US 09/627,216  
PRIOR FILING DATE: 2000-07-27  
PRIOR APPLICATION NUMBER: US 60/147,719  
PRIOR FILING DATE: 1999-08-06  
NUMBER OF SEQ ID NOS: 38  
SOFTWARE: Microsoft Office 97  
SEQ ID NO 13  
LENGTH: 1863  
TYPE: DNA  
ORGANISM: Helianthus tuberosus  
FEATURE:  
NAME/KEY: CDS  
LOCATION: (1)..(1764)  
US-09-765-873A-13

Query Match 2.8%; Score 58.2; DB 10: Length 1863;  
Best Local Similarity 49.3%; Pred. No. 2.7e-07;  
Matches 255; Conservative 0; Mismatches 238; Indels 24; Gaps 3:

Qy 1576 ACAACAAATTTCTTCCACTTACAGATGACCCCTCAATCCCATATATGTTGGTCA 1635  
Db 1276 AGAACATGCAACTTCCAGCTTCCAGCTTAAGTCCCGCTTATCATGTTGGCCT 1335  
Qy 1636 GGAACCGGCATAGCCCCGTTTATGTTGCTTACACATATAGAGAAACTCCAAACAA 1695  
Db 1336 GGAACCGGCTTGGCTCCGTTTATGAGGTTTCTTCAAGAAATTAAGTCAAGAAATCT 1395  
Qy 1696 CACCAGATGAAATTTTGGAGCATGTGTTTTTGGCTGAGCATTAAGATAGGAT 1755  
Db 1396 GGAACCGA---ACTCGGTCAATCCATTTTCTTCCGTTGCGATGAGAAACCGTAACTGAT 1452  
Qy 1756 TATCATTTAGAAAGAGCTGAGCATTTCTTAAGCATGGATCTTAACCTATTAAG 1815  
Db 1453 TTCATATATGAAATGAACTGAACAACCTTTGTTAAATGGCGGCTTCCGAGCTTGAC 1512  
Qy 1816 GTTTCCTTCTCAAGATGCTCTCTTGGGAGAGGAAAGCCCGCAGCAAGATATGTACA 1875  
Db 1513 ATGGCTTCTCTCGC-----GAAGCGCATCTTAAGAAATTAAGCTGCA 1554  
Qy 1876 GACACATTCAGCTTCATGGCAGGAGGCGGAGAAATCTCTCCAGAGAAAGCGCAT 1935  
Db 1555 CATAAATGAGCCAAAGGCTTCGGAATAT---ATGAAACATGCTTTCTGAGGAGACATAC 1611  
Qy 1936 ATTTATGTGTGAGATGCAAGAATATGGCAAGATATGATGATGATGATGATGCA 1995  
Db 1612 TTATACGTGTGTGATGAGCCAAAGCATGGCTTAAGATGTACACCAACCTTCAACAC 1671  
Qy 1996 ATAAATACCAAGAGCTTGGATGAAAAACTAGAAAGCAATAAACCTGGCCACTTTA 2055  
Db 1672 ATTTGCAAGAACAGGAAATTTGATTCCTCTTAAGCAGACCTGTATGTGAAGATCTA 1731  
Qy 2056 AAGAAGAAAGAGCTTACCTCAGATATTTGTCAT 2092

Db 1732 CAATGTGCGGAAGATACCTCCGTGATGTTGGTAT 1768  
Qy 1732 CAATGTGCGGAAGATACCTCCGTGATGTTGGTAT 1768

RESULT 14  
US-09-822-849A-278  
Sequence 278, Application US/09822849A  
Patent No. US20020045170A1  
GENERAL INFORMATION:  
APPLICANT: Wong, Gordon G.  
APPLICANT: Clark, Hilary  
APPLICANT: Fechtel, Kim  
APPLICANT: Agostino, Michael J.  
APPLICANT: Howes, Steven H.  
APPLICANT: Resnick, Richard J.  
APPLICANT: Gulukola, Kamalakar  
APPLICANT: Graham, James R.  
APPLICANT: Genetics Institute, Inc.  
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS  
FILE REFERENCE: GIN 6403  
CURRENT APPLICATION NUMBER: US/09/822,849A  
CURRENT FILING DATE: 2001-09-04  
PRIOR APPLICATION NUMBER: 60/195,582  
PRIOR FILING DATE: 2000-04-06  
NUMBER OF SEQ ID NOS: 598  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 278  
LENGTH: 2470  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-822-849A-278

Query Match 2.7%; Score 56.2; DB 10: Length 2470;  
Best Local Similarity 54.7%; Pred. No. 1.4e-06;  
Matches 134; Conservative 0; Mismatches 108; Indels 3; Gaps 1:

Qy 1588 TTCCACTTACAGATGACCCCTCAATCCCATCATTAATGTTGGTCCAGAAACCGGATTA 1647  
Db 1615 TTCCGCTTCCCTTTTAAGGCCACACGCTGTATCATATGTTGGGCCCCGACCGGGTG 1674  
Qy 1648 GCCCGTTTATGTTGGTCTTCAACATAGAGAGAAATCCAAAGAAACACCCAGATGA 1707  
Db 1675 GCACCTTCATATGCTTTCATCCAGAGAGCGGCGCTGCGCACAGGCAAGAGAGTG 1734  
Qy 1708 AATTTGGAGCATGTGTTTTTGGCTGACAGGCAATTAAGATATGATATATTCACA 1767  
Db 1735 GGC---GAGACCTCTCTTACTACGAGCTGCGCCGCTCGATGAGAGCTTACTGTACCG 1791  
Qy 1768 AAGAGCTCAGACATTTCTTAAAGCATGGATCTTAACATCTTAAGGTTCTTCTCA 1827  
Db 1792 GAGGAGCTGCGCCAGCTTCCACAGGAGGAGGCTGCGTCCACCGACTACGCTGCTTTC 1851  
Qy 1828 AGAGA 1832  
Db 1852 CGGGA 1856

RESULT 15  
US-09-938-842A-803  
Sequence 803, Application US/09938842A  
Patent No. US20020160378A1  
GENERAL INFORMATION:  
APPLICANT: Harper, Jeff  
APPLICANT: Kieps, Joel  
APPLICANT: Wang, Xun  
APPLICANT: Zhu, Tong  
TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING  
FILE REFERENCE: SCRIPT300-3  
CURRENT APPLICATION NUMBER: US/09/938,842A  
CURRENT FILING DATE: 2001-08-24  
PRIOR APPLICATION NUMBER: US 60/227,866  
PRIOR FILING DATE: 2000-08-24



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OM nucleic - nucleic search, using sw model

Run on: July 29, 2003, 09:58:39 ; Search time 88.9321 Seconds  
(without alignments)  
7221.032 Million cell updates/sec

Title: US-09-371-347A-45  
Perfect score: 2094

Sequence: 1 atgagagaggttccttact.....ttcagatattgttcataa 2094

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapept 1.0

Searched: 441362 seqs, 153338381 residues

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued\_Patents\_NA.\*  
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2: /cgn2\_6/ptodata/1/ina/5B.COMB.seq:\*  
3: /cgn2\_6/ptodata/1/ina/6A.COMB.seq:\*  
4: /cgn2\_6/ptodata/1/ina/6B.COMB.seq:\*  
5: /cgn2\_6/ptodata/1/ina/PTOS.COMB.seq:\*  
6: /cgn2\_6/ptodata/1/ina/Dackfile1.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2081	99.4	3259	4	US-09-318-448-23 Sequence 23, Appl
2	386.4	18.5	390	4	US-08-905-223-71 Sequence 71, Appl
3	58.2	2.8	1863	4	US-09-627-216A-13 Sequence 13, Appl
4	57.4	2.7	4353	2	US-08-365-486A-18 Sequence 18, Appl
5	57.4	2.7	4353	4	US-08-880-342-18 Sequence 18, Appl
6	57.4	2.7	4780	2	US-08-365-486A-20 Sequence 20, Appl
7	57.4	2.7	4780	3	US-09-123-708-3 Sequence 3, Appl
8	57.4	2.7	4780	4	US-08-880-342-20 Sequence 3, Appl
9	57.4	2.7	4780	4	US-08-880-342-20 Sequence 20, Appl
10	52.6	2.5	5057	2	US-08-365-486A-12 Sequence 12, Appl
11	52.6	2.5	5057	4	US-08-880-342-12 Sequence 12, Appl
12	52.6	2.5	5057	4	US-07-642-002-1 Sequence 11, Appl
13	50.2	2.4	1448	4	US-08-936-165A-113 Sequence 113, Appl
14	49.4	2.4	1890	4	US-09-134-001C-1557 Sequence 1557, Ap
15	46.2	2.2	7218	1	US-08-232-463-14 Sequence 14, Appl
16	45.6	2.2	7218	4	US-08-232-463-14 Sequence 14, Appl
17	44	2.1	307	4	US-09-172-711-24 Sequence 24, Appl
18	40.6	1.9	382	4	US-08-976-258-78 Sequence 78, Appl
19	37.8	1.8	4145	4	US-09-302-620B-82 Sequence 82, Appl
20	36.6	1.7	3701	1	US-08-553-279-1 Sequence 1, Appl
21	36.6	1.7	4041	1	US-08-147-812-4 Sequence 1, Appl
22	36.6	1.7	4110	3	US-09-123-708-1 Sequence 1, Appl
23	36.6	1.7	4110	3	US-09-123-708-1 Sequence 1, Appl
24	36.6	1.7	4165	1	US-08-147-812-6 Sequence 6, Appl
25	36.6	1.7	45546	4	US-09-146-053-6 Sequence 6, Appl
26	36.2	1.7	4206	4	US-09-302-620B-81 Sequence 81, Appl
27	36	1.7	4089	1	US-07-908-245-1 Sequence 1, Appl

28	36	1.7	4097	3	US-09-123-708-5 Sequence 5, Appl
29	36	1.7	4097	3	US-09-123-708-5 Sequence 5, Appl
30	35.4	1.7	1296	4	US-09-134-001C-1501 Sequence 1501, Ap
31	34.8	1.7	4062	4	US-09-126-109-11 Sequence 11, Appl
32	34.8	1.7	4145	1	US-08-314-917-1 Sequence 1, Appl
33	34.8	1.7	4145	1	US-08-265-046-1 Sequence 1, Appl
34	34.8	1.7	4145	2	US-08-465-522-1 Sequence 1, Appl
35	34.8	1.7	4145	5	PCR-US93-11401-1 Sequence 1, Appl
36	34.8	1.7	4145	5	PCR-US95-07849-1 Sequence 1, Appl
37	34.2	1.6	1569	3	US-08-680-726A-57 Sequence 57, Appl
38	34.2	1.6	1569	3	US-09-092-409-57 Sequence 57, Appl
39	34.2	1.6	10592	1	US-08-680-726A-51 Sequence 51, Appl
40	34.2	1.6	10592	1	US-08-680-726A-52 Sequence 52, Appl
41	34.2	1.6	10592	3	US-09-092-409-51 Sequence 51, Appl
42	34.2	1.6	10592	3	US-09-092-409-52 Sequence 52, Appl
43	34	1.6	2223	1	US-08-257-073-4 Sequence 4, Appl
44	33.8	1.6	1702	1	US-08-261-822A-14 Sequence 14, Appl
45	33.8	1.6	1702	5	PCR-US95-07744A-14 Sequence 14, Appl

ALIGNMENTS

RESULT 1									
US-09-318-448-23									
Sequence 23, Application US/09318448									
Patent No. 6210950									
GENERAL INFORMATION:									
APPLICANT: Johnson, William G.									
APPLICANT: Stearns, Edward S.									
TITLE OF INVENTION: METHODS FOR DIAGNOSING, PREVENTING, AND TREATING									
FILE REFERENCE: 601-1-057									
CURRENT APPLICATION NUMBER: US/09/318,448									
CURRENT FILING DATE: 1999-05-25									
NUMBER OF SEQ ID NOS: 46									
SOFTWARE: PatentIn Ver. 2.0									
SEQ ID NO 23									
LENGTH: 3259									
TYPE: DNA									
ORGANISM: Homo sapiens									
US-09-318-448-23									
Query Match									
Best Local Similarity 99.4% Score 2081; DB 4; Length 3259;									
Matches 2094; Conservative 0; Mismatches 0; Indels 3; Gaps 1;									
QY	1	ATGAGAGAGTTCTGTTACTATATGCTACACAGCAGGACGAAAGCCATCGCAGAA	60						
DB	80	ATGAGAGAGTTCTGTTACTATATGCTACACAGCAGGACGAAAGCCATCGCAGAA	139						
QY	61	GAATGTGTGACAGCAGCTGTGTACATGATTTTCGACATCTTCACCTATTAGTGAA	120						
DB	140	GAATGTGTGACAGCAGCTGTGTACATGATTTTCGACATCTTCACCTATTAGTGAA	199						
QY	121	TCGGAATGATGACCTAAACGCAACAGCTCTCTGTTGTGTGTTCTACACG	180						
DB	200	TCGGAATGATGACCTAAACGCAACAGCTCTCTGTTGTGTGTTCTACACG	259						
QY	181	GGCAGCGAGACCCAGCCGACACAGCCGCAAGTTGTTAAGAAATACAGAACCAACA	240						
DB	260	GGCAGCGAGACCCAGCCGACACAGCCGCAAGTTGTTAAGAAATACAGAACCAACA	319						
QY	241	CTGCCGGTTGATTTTGTCTCACCCTGGGTATGGCTTACTGCTCGGTGATTCAGAA	300						
DB	320	CTGCCGGTTGATTTTGTCTCACCCTGGGTATGGCTTACTGCTCGGTGATTCAGAA	379						
QY	301	TACACCTCTTTTGAATGGGGGGAAGATTAATGAACGACTCAAGAGCTTGAGGCC	360						
DB	380	TACACCTCTTTTGAATGGGGGGAAGATTAATGAACGACTCAAGAGCTTGAGGCC	439						
QY	361	CGGATTTCTATGACACTGACATGACATGACTGTAGTTTGAACCTGTGTTGAG	420						





; TELEPHONE: (619) 235-8550  
 ; TELEFAX: (619) 235-0176  
 ; INFORMATION FOR SEQ ID NO: 71:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 390 base pairs  
 ; TYPE: NUCLEIC ACID  
 ; STRANDEDNESS: DOUBLE  
 ; TOPOLOGY: LINEAR  
 ; MOLECULE TYPE: CDNA  
 ; ORIGINAL SOURCE:  
 ; ORGANISM: Homo Sapiens  
 ; TISSUE TYPE: Brain  
 ; FEATURE:  
 ; NAME/KEY: sig-peptide  
 ; LOCATION: 289..357  
 ; IDENTIFICATION METHOD: Von Heijne matrix  
 ; OTHER INFORMATION: score 6.9  
 ; OTHER INFORMATION: seq SLSLASHSVSC/SN  
 ; US-08-905-223-71

Query Match 18.5%; Score 386.4; DB 4; Length 390;  
 Best Local Similarity 99.7%; Pred. No. 1,1e-117;  
 Matches 387; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 968 AGGTACAAAGCCTACTCCAAAGACTGCAGCTTGAAGATAAAGAGAGACACTGCTCTTT 1027  
 DB 1 AAGTCAAAAGCCTACTCCAAAGACTGCAGCTTGAAGATAAAGAGAGACACTGCTCTTT 60  
 QY 1028 TGAATAAAGGACACACAAAGAAAGAGCTACCTTACCAGCATATACCTGCGG 1087  
 DB 61 TGAATAAAGGACACACAAAGAAAGAGCTACCTTACCAGCATATACCTGCGG 120  
 QY 1088 GATGTTCTCTCCAGTTCATTTTACCTGTGTCTGAATCCGAGCAATTCCTAAAGAG 1147  
 DB 121 GATGTTCTCTCCAGTTCATTTTACCTGTGTCTGAATCCGAGCAATTCCTAAAGAG 180  
 QY 1148 CATTTTGGAGCCCTTGTGACTATACCACTGACAGTCTGTAAGAGCCAGCTACAGC 1207  
 DB 181 CATTTTGGAGCCCTTGTGACTATACCACTGACAGTCTGTAAGAGCCAGCTACAGC 240  
 QY 1208 ACCTGTGCACTAAACAGGGGCGAGCGATTATAGCCCTTTGTAGAGATGCTGTGCT 1267  
 DB 241 ACCTGTGCACTAAACAGGGGCGAGCGATTATAGCCCTTTGTAGAGATGCTGTGCT 300  
 QY 1268 GCTTGTGATCTCCCTCGGCTTCCCTTCTTGCCAGCCACCACTCACTGCTGCTG 1327  
 DB 301 GCTTGTGATCTCCCTCGGCTTCCCTTCTTGCCAGCCACCACTCACTGCTGCTG 360  
 QY 1328 AACATCTTCTTAACCTCAACCCAGACC 1355  
 DB 361 AACATCTTCTTAACCTCAACCCAGACC 388

RESULT 3  
 ; US-09-627-216A-13  
 ; Sequence 13, Application US/09627216A  
 ; Patent No. 6368837  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Sarislanli, Sima F  
 ; APPLICANT: Tang, Xiao-Song  
 ; APPLICANT: Q1, Wei Wei  
 ; APPLICANT: Vannelli, Todd  
 ; APPLICANT: Gatenby, Anthony  
 ; TITLE OF INVENTION: Bioproduction of para-Hydroxycinnamic Acid  
 ; FILE REFERENCE: BC1009 US NA  
 ; CURRENT APPLICATION NUMBER: US/09/627, 216A  
 ; CURRENT FILING DATE: 2000-07-27  
 ; PRIOR APPLICATION NUMBER: 60/147, 719  
 ; NUMBER OF SEQ ID NOS: 14  
 ; SOFTWARE: Microsoft Office 97  
 ; SEQ ID NO 13  
 ; LENGTH: 1863

; TYPE: DNA  
 ; ORGANISM: Helianthus tuberosus  
 ; US-09-627-216A-13

Query Match 2.8%; Score 58.2; DB 4; Length 1863;  
 Best Local Similarity 49.3%; Pred. No. 1.3e-08;  
 Matches 255; Conservative 0; Mismatches 238; Indels 24; Gaps 3;

QY 1576 ACAACAAATTTCTTCCACTTACCATGATGACCCCTCAATCCCATATATGTTGGGTCA 1635  
 DB 1276 AGACATGCACTTACACTGACCTGACCTCAAGTCCGCTTATCATGATGGCCT 1335  
 QY 1636 GGAACCGGATGACCCCGTTTATGAGTCTTACCAACATAGAGAAACTCCAGAACAA 1695  
 DB 1336 GGAACCGGATGACCCCGTTTATGAGTCTTCTTCAAGAAATTAGCTCTCAAGAACT 1395  
 QY 1696 CACCCAGATGAAATTTTGGACCAATTTGCTTTTGGCTGACGACATAGATAGGAT 1755  
 DB 1396 GGAACCGA---ACTGGTCAATTCATTTTGTCTTGGTTCGGAAGAACGTTAAAGTGAT 1452  
 QY 1756 TATCATATCAGAAAGAGCTCAGACATTTCTTAAGCATGGATCTTAATCATCTAAG 1815  
 DB 1453 TTCAATATATGAAATGAACTGACACACTTTGTGAAGATGGCCGCTTTCCAGCTTGC 1512  
 QY 1816 GTTTCCTTCTCAAGAGATGCTCTGTTGGGAGAGAGAACCCCAAGATATGTACAA 1875  
 DB 1513 ATGGCTTCTCTGCG-----GAAAGGCGCATCTTAAGAAATACGTGCA 1554  
 QY 1876 GACACATTCACCTTCATGTCGACAGAGTGGCGAGATCTCTCCAGAGAACGCCAT 1935  
 DB 1555 CATAAATATGACCAAAAGCCTTCGATAT---ATGAAACATCTTCTTGAGGAGCATAC 1611  
 QY 1936 ATTTATGTTGTGAGATGCAAGAAATATGGCCCAAGAGATGTACATGATGCCCTGTGCA 1995  
 DB 1612 TTATACGTGTGTGATGATCCAAAGCATGCTTAAGATGTAACCCAGAACCTTACACC 1671  
 QY 1996 ATAAATAGCAAGAGTGTGAGTGAATAAAGTGAAGCAATGAACCTTGCCACTTAA 2055  
 DB 1672 ATTTGCAAGAACAGGAAATTTGATTCCTCTTAAGCAGACCTGTATGTGAAGATCA 1731  
 QY 2056 AAGCAAGAAAGCCTTACCTTCAAGATATTTGTGCT 2092  
 DB 1732 CAATGTCTCGGAAGATACCTCGTATGTTGTGAT 1768

RESULT 4  
 ; US-08-365-486A-18  
 ; Sequence 18, Application US/08365486A  
 ; Patent No. 5834306  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Webster, Keith A.  
 ; APPLICANT: Bishopric, Nanette H.  
 ; TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
 ; NUMBER OF SEQUENCES: 31.  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Dehlinger & Associates  
 ; STREET: 350 Cambridge Avenue, Suite 250  
 ; CITY: Palo Alto  
 ; STATE: CA  
 ; COUNTRY: USA  
 ; ZIP: 94306  
 ; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Floppy disk  
 ; COMPUTER: IBM PC compatible  
 ; OPERATING SYSTEM: PC-DOS/MS-DOS  
 ; SOFTWARE: PatentIn Release #1.0, Version #1.25  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/08/365, 486A  
 ; FILING DATE: 23-DEC-1994  
 ; CLASSIFICATION: 514  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: Sholtz, Charles K.

REGISTRATION NUMBER: 38,615  
REFERENCE/DOCKET NUMBER: 8255-0018  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-0860  
TELEFAX: (415) 324-0960  
INFORMATION FOR SEQ ID NO.: 18:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 4353 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA to mRNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
ORIGINAL SOURCE:  
INDIVIDUAL ISOLATE: Human NOS-1 gene, Fujisawa, et al,  
INDIVIDUAL ISOLATE: J. Neurochem 63:140 1994  
FEATURE:  
NAME/KEY: CDS  
LOCATION: 1..4305  
US-08-365-486A-18

Query Match	2.7%	Score 57.4;	DB 2;	Length 4353;
Best Local Similarity	46.7%;	Pred. No. 4.4e-08;		
Matches 233; Conservative	0;	Mismatches 251;	Indels 15;	Gaps 1;

OY	1588	TTCCACTTACCAGATGAGTACCCTTCATATCCCATTCATATATGTGTGGTTCAGAGAACCGGCATA	1644
Dd	3715	TTCCACTGCCCCGGAGACCCCAAGTCCCTGTGCATCTCTGTGGACCGAGGACGGCATTT	3774
OY	1648	GCCCCGTTTATTTGGGTTCTTCAACATAGAGAGAACTCAAGAAACAACACCACAGATGGA	1707
Dd	3775	GCCCCGTTTCCGAACTCTGTGSCAACAAGCGGCATTTGATATTCACACAAAGGATGAAC	3833
OY	1708	AATTTTGGAGCAATGTGGTTTTTTTGGCTGCGAGCATAAAGATAGGATTTATCTATTAGA	1767
Dd	3835	CCCTGCCCCATGTCTGTGGTCTTGCGGGCCGGGAATCCAGAATAGATCATATCTACAGG	3894
OY	1768	AAAGAGCTCAACATTTCTTTAACATATGGATCTTAATCTCATCTTAAAGGTTTCCCTTCA	1827
Dd	3895	GAAAGAGACCTTCGACGCCAACAACAGGGGCTTTCAAGAGCTGTACAGGCTTACCC	3955
OY	1828	AGAGATCTCTCTGTTGGGGAGAGAGAACCCACCAAGTATGTACAGACACATCCAG	1887
Dd	3955	C-----GGAGCCAGACAAACAAAGAAATGACGTGCAGGACATCTCGTG	3999
OY	1888	CTTCATGSCAGCAGGTGGCGAGATCTCTCCAGAGAGAACGGCCATATTTATGTGHT	1947
Dd	4000	GAGCAGCTGGCGGAGTCTGTGTACCGAGCCTGAAGGAGCAAGGGGGCCATATACGTC	4059
OY	1948	GGAGATCCAAAGATATGSCCAAGGATGTACATATGCTCTTGTGCAATATATTAACAA	2007
Dd	4060	TGTGGGAGCTACACATGCTGTGTGATGCTCTCAAAACCATCCAGGCATCATACCCAG	4119
OY	2008	GAGTTTGAGTGTGAAAACTAGAAGCATGCAAAACCTGGCCACTTTTAAAGAGAAAA	2067
Dd	4120	CAGGGGAAGCTCTGGCAGAGAGACCGCGGTATTATCATACCGGATGAGGATGACAAAC	4179
OY	2068	CGCTACTTTCAGGATATTT	2086
Dd	4180	CGATCCATGAGGATATTT	4198

US-08-880-342-18  
 RESULT 5  
 : Sequence 18, Application US/08860342  
 : Patent No. 6218179  
 : GENERAL INFORMATION:  
 : APPLICANT: Webster, Keith A.  
 : APPLICANT: Bishopric, Nanette H.  
 : APPLICANT: Murphy, Brian  
 : APPLICANT: Laderoute, Keith R.  
 : APPLICANT: Green, Christopher J.

```

1  TITLE OF INVENTION: Tissue Specific Hypoxia Regulated
2  TITLE OF INVENTION: Therapeutic Constructs
3  NUMBER OF SEQUENCES: 37
4  CORRESPONDENCE ADDRESS:
5  ADDRESSEE: Dehlinger & Associates
6  STREET: 350 Cambridge Avenue, Suite 250
7  CITY: Palo Alto
8  STATE: CA
9  COUNTRY: USA
10 ZIP: 94306
11
12 COMPUTER READABLE FORM:
13 MEDIUM TYPE: Floppy disk
14 COMPUTER: IBM PC compatible
15 OPERATING SYSTEM: PC-DOS/MS-DOS
16 SOFTWARE: Patent Release #1.0, Version #1.25
17
18 CURRENT APPLICATION DATA:
19 APPLICATION NUMBER: US/08/880,342
20 FILING DATE: 23-JUN-1997
21 CLASSIFICATION: 514
22
23 PRIOR APPLICATION DATA:
24 APPLICATION NUMBER: PCT/IB95/00996
25 FILING DATE: 13-NOV-1995
26
27 PRIOR APPLICATION DATA:
28 APPLICATION NUMBER: US 08/365,486
29 FILING DATE: 23-DEC-1994
30
31 ATTORNEY/AGENT INFORMATION:
32 NAME: Sholtz, Charles K.
33 REGISTRATION NUMBER: 38,615
34 REFERENCE/DOCKET NUMBER: 8255-0018.30
35 TELECOMMUNICATION INFORMATION:
36 TELEPHONE: (415) 324-0880
37 TELEFAX: (415) 324-0960
38
39 INFORMATION FOR SEQ ID NO. 18:
40 SEQUENCE CHARACTERISTICS:
41 LENGTH: 4353 base pairs
42 TYPE: nucleic acid
43 STRANDEDNESS: double
44 TOPOLOGY: linear
45 MOLECULE TYPE: CDNA to mRNA
46
47 HYPOTHETICAL: NO
48 ANTI-SENSE: NO
49
50 ORIGINAL SOURCE:
51 INDIVIDUAL ISOLATE: Human NOS-1 gene, Fujisawa, et al,
52 INDIVIDUAL ISOLATE: J. Neurochem 63:140 1994
53 FEATURE:
54 NAME/KEY: CDS
55 LOCATION: 1..4305
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Query Match	2.7%: Best Local Similarity	46.7%: Predicted No. Matches	57.4%: Conservative	DB A	Length 4353
QY	1588	TTCCACTTACCAAGATGACCCCTCATCCCTCATTAAGTGGGGCCGAGAACCGGCATA	1647		
Db	3715	TTCCACTTACCCCGGGAACCCCAAGTCCCTCTGCTCTGTTGGACCGGACCGGCATT	3774		
QY	1648	GCCCGCTTTATTTGGGTTCTCAACAATAGAGAGAAATCCAAAGAACACCCAGATGGA	1707		
Db	3775	GCCCGCTTTCCGAACCTCTGGCAGACAGGGGCAATTTGATATTCACACAAAGGAATGAC	3833		
QY	1708	AAATTTGGAGCAATGTGCTTTTGGCTGCAGGATAGAGATTAATCTATTCAGA	1767		
Db	3835	CCCTGGCCCATGTGCTGTCTTCTGGGGTGGCCGCAATCCAAAGATATCATATCTACAG	3894		
QY	1768	AAAGAGCTCAGACATTTTCCTTAAGCATGGATCTTAACTCATCTTAAAGGTTTCCTTCA	1827		
Db	3895	GAGAGAGACCTTCGACGGCCCAAGAACAAAGGGGCTTTCAGAGAGCTGTACACGGCTTACCC	3954		
QY	1828	AGAGATCTCTCTGTGTGGGGAGAGAGAACCCACCAAGATGTATGACAAGACACATCCAG	1887		
Db	3955	C-----GGAGCCAGACAAACCAAGAGATACGTCAGGAGATCTCTGAG	3999		



Db 4262 CCCTGCCCCATGTCCTGGTCTTGGGTGCGGCAATCCAGATGATCATATCTACAG 4321  
QY 1768 AAGAGCTCAGACATTTCTTAAGCATGGATCTTAATCATCTAAAGGCTTCCCTCA 1827  
Db 4322 GAAAGACCTCGACAGGCAAGAGGGGTCTTCAAGAGCTGTACAGGCTTACTCC 4381  
QY 1828 AGAGATGCTCTGTTGGGGAGAGAACCCAGCAAGATATGACAGACATCCAG 1887  
Db 4382 C-----GGAGCCAGACAAACCAAGATGAGTACGAGACATCCTGAG 4426  
QY 1888 CTTATGCGCCAGCAGGTGGCGAGAAATCTCTCCAGGAGAACGCCATATTATGTGCT 1947  
Db 4427 GAGAGCTGGCGGAGTGTGTCTACCGAGCCCTGAAGGAGCAAGGGGCGCATATACGTC 4486  
QY 1948 GAGATGCAAAAGATATGCGCCAGATGATCATGATGCTGTGCAAAATATAAGCAA 2007  
Db 4487 TGTGGGAGCTGACCATATGCTGTGATGTCTCAAGGCAATCCAGCGCATATGACCCAG 4546  
QY 2008 GAGGTGGAGTTGAAAACTAGAAAGCAATGAAACCTGGCCACTTTAAAAAGAAAA 2067  
Db 4547 CAGGGAAGCTCTCGCGAGAGAGCGCGGCTATTATCATACCGGATGAGGATGACAC 4606  
QY 2068 CGTACCTTCAGATATT 2086  
Db 4607 CGATACCATGAGATATT 4625

## RESULT 8

US-09-123-624-3

Sequence 3, Application US/09123624  
Patent No. 6149936  
GENERAL INFORMATION:  
APPLICANT: SCHRAEDER, Jurgen  
APPLICANT: GODECKE, Axel  
TITLE OF INVENTION: DNA EXPRESSION VECTORS FOR USE IN THE GENE THERAPEUTIC  
TITLE OF INVENTION: TREATMENT OF VASCULAR DISORDERS  
FILE REFERENCE: 511169-2004  
CURRENT APPLICATION NUMBER: US/09/123.624  
PRIOR FILING DATE: 1998-07-28  
PRIOR APPLICATION NUMBER: 08/553.503  
PRIOR FILING DATE: 1996-03-01  
PRIOR APPLICATION NUMBER: 4411402.8  
PRIOR FILING DATE: 1994-03-31  
NUMBER OF SEQ ID NOS: 6  
SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO 3  
LENGTH: 4780  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-123-624-3

Query Match Best Local Similarity 2.7%; Score 57.4; DB 3; Length 4780;

Matches 233; Conservative 0; Mismatches 251; Indels 15; Gaps 1;

QY 1588 TTCACACTTACAGATGACCCCTCAATCCCATATATGAGTGGTCCAGAACGGGATA 1647  
Db 4142 TTCACACTGCCCCGGAACCCCAAGTCCCTCGATCTCTGTGACCAAGGACGGGAT 4201  
QY 1648 GCCCGCTTATTTGGGTCTTACACATAGAGAGAACTCCAGAACCAACCCAGATGA 1707  
Db 4202 GCCCGCTTTCGAACTTCTGCAACACGCGCAATTTGATATCCAAACAAAGAAATGAC 4261  
QY 1708 AATTTGAGCAATGTGTTTGGTGGAGGATAGAGATAGGATTTATCTATTGAGA 1767  
Db 4262 CCCTGCCCCATGCTGCTGTGCTTGGGTGCGGCAATCAAGATGATCATATCTACAG 4321  
QY 1768 AAGAGCTCAGACATTTCTTAAGCATGGATCTTAATCATCTAAAGGCTTCCCTCA 1827  
Db 4322 GAAAGACCTCGACAGGCAAGAGGGGTCTTCAAGAGCTGTACAGGCTTACTCC 4381  
QY 1828 AGAGATGCTCTGTTGGGGAGAGAAAGCCCAAGATATGATGACAAACATCCAG 1887

Db 4382 C-----GGAGCCAGACAAACCAAGATGAGTACGAGACATCCTGAG 4426  
QY 1888 CTTATGCGCCAGCAGGTGGCGAGAAATCTCTCCAGGAGAACGCCATATTATGTGCT 1947  
Db 4427 GAGAGCTGGCGGAGTGTGTCTACCGAGCCCTGAAGGAGCAAGGGGCGCATATACGTC 4486  
QY 1948 GAGATGCAAAAGATATGCGCCAGATGATCATATGCTGTGCAAAATATAAGCAA 2007  
Db 4487 TGTGGGAGCTGACCATATGCTGTGATGTCTCAAGGCAATCCAGCGCATATGACCCAG 4546  
QY 2008 GAGGTGGAGTTGAAAACTAGAAAGCAATGAAACCTGGCCACTTTAAAAAGAAAA 2067  
Db 4547 CAGGGAAGCTCTCGCGAGAGAGCGCGGCTATTATCATACCGGATGAGGATGACAC 4606  
QY 2068 CGTACCTTCAGATATT 2086  
Db 4607 CGATACCATGAGATATT 4625

## RESULT 9

US-08-880-342-20

Sequence 20, Application US/08880342  
Patent No. 6218179  
GENERAL INFORMATION:  
APPLICANT: Webster, Keith A.  
APPLICANT: Bishopric, Nanelle H.  
APPLICANT: Murphy, Brian  
APPLICANT: Laderoute, Keith R.  
APPLICANT: Green, Christopher J.  
TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESS: Dellinger & Associates  
STREET: 350 Cambridge Avenue, Suite 250  
CITY: Palo Alto  
STATE: CA  
COUNTRY: USA  
ZIP: 94306  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/880.342  
FILING DATE: 23-JUN-1997  
CLASSIFICATION: 514  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: PCT/1995/00996  
FILING DATE: 13-NOV-1995  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/365,486  
FILING DATE: 23-DEC-1994  
ATTORNEY/AGENT INFORMATION:  
NAME: Sholtz, Charles K.  
REGISTRATION NUMBER: 38,615  
TELEPHONE/DOCKET NUMBER: 8255-0018.30  
TELEPHONE: (415) 324-0960  
TELEFAX: (415) 324-0880  
INFORMATION FOR SEQ ID NO: 20:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 4780 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA to mRNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
ORIGINAL SOURCE:  
INDIVIDUAL ISOLATE: Human NOS-5N gene, Nakane, et al,  
INDIVIDUAL ISOLATE: FEBS Lett 316:175 (1993)

FEATURE:  
NAME/KEY: CDS  
LOCATION: 431..4732  
US-08-880-342-20

Query Match 2.7%; Score 57.4; DB 4; Length 4780;  
Best Local Similarity 46.7%; Pred. No. 4.7e-08;  
Matches 233; Conservative 0; Mismatches 251; Indels 15; Gaps 1;

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OY 1588 TTCACCTTACAGATGACCCCTCATCCCATCATATGATGGTGGTCCAGAACCGGCATTA 1647
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DB 4142 TTCACCTGCCCCGAGACCCCAAGTCCCTGATCTCTGGACACGCGGCATTT 4201
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OY 1648 GCCCCGTTTATGAGTCTCTACATAGAGAGAACTCAAGAACACACCCAGATGGA 1707
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4202 GCCCCGTTTCCAGAGCTTCTGGCAACAGGGCATTTGATATCCACACAAAGATGAA 4261
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OY 1708 AATTTGAGACATGTGTTTTTTGGCTGCAGGCATTAAGATAGGATTAATCTATTCAGA 1767
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4262 CCTTCCCCCATGCTCTGCTCTCGGGTGCCGCAATCCAGATAGATCATATCTAACAG 4321
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OY 1768 AAGAGCTCAGACATTTCTTAAGCATGGATGATCTTAAGTCTTAAGTTCTCTTCA 1827
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DB 4322 GAAGAGACCTGACAGCCCAAGAGAGGGGCTTTCAGAGACTGTACAGGCTTACTCC 4381
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OY 1828 AGAGATGCTCTGTTGGGAGAGAGAGCCCGCAGCAAGTATGACAAACACATCCAG 1887
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4382 C-----GGAGGCCAGACAAACCAAGAGTACGTGACAGACATCTCTGACAG 4426
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OY 1888 CTTATGCGCCACAGAGTGGCCGAGAACTCTCTCCAGAGAACGGCCATATTTATGTGT 1947
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4427 GAGCAGCTGGGGAGTCTGTGTACCGAGCCCTGAAGAGCAAGGGGCCACATATACGTC 4486
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OY 1948 GGAGATGCAGAAATATGAGCCAGAGATGATGATGATGATGATGATGATGATGATGATG 2007
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4487 TGTGGGAGACGTACCATGTGCTGTATGCTCTCAAGACCATCAGCGCATGACCCAG 4546
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OY 2008 GAGGTTGAGTTGAAATAGAACCAATGAATGAAACCTGCGCATTTTAAAGAGAAAA 2067
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DB 4547 CAGGGGAAGCTCTCGGACAGAGACGCCGGCTATTATCATCAGCGGATGAGGATGACAA 4606
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OY 2068 CGCTACCTTCAGATATTT 2086
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DB 4607 CGATACCATGAGATATTT 4625
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## RESULT 10

US-08-365-486A-12  
Sequence 12, Application US/08365486A  
Patent No. 5834306

GENERAL INFORMATION:  
APPLICANT: Webster, Keith A.  
TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
NUMBER OF SEQUENCES: 31  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Dehlinger & Associates  
STREET: 350 Cambridge Avenue, Suite 250  
CITY: Palo Alto  
STATE: CA  
COUNTRY: USA  
ZIP: 94306  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/365,486A  
FILING DATE: 23-DEC-1994  
CLASSIFICATION: 514  
ATTORNEY/AGENT INFORMATION:

NAME: Sholtz, Charles K.  
REGISTRATION NUMBER: 38,615  
REFERENCE/DOCKET NUMBER: 8255-0018  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-0880  
TELEFAX: (415) 324-0960  
INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 5057 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA to mRNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
ORIGINAL SOURCE:  
INDIVIDUAL ISOLATE: rat bnos cDNA

Query Match 2.5%; Score 52.6; DB 2; Length 5057;  
Best Local Similarity 46.1%; Pred. No. 1.9e-06;  
Matches 230; Conservative 0; Mismatches 254; Indels 15; Gaps 1;

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OY 1588 TTCACCTTACAGATGACCCCTCATCCCATCATATGATGGTGGTCCAGAACCGGCATTA 1647
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DB 4048 TTCACCTGCTCGAATCCCAAGTCCCTTCAATCTGTTGGCCAGACCTGACATC 4107
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DB 4108 GCACCTTCCGAAGCTTGTGGCAACAGCAATTTGACATCCACACAAAGATGAT 4167
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OY 1708 AATTTGAGCAATGTGTTTTTTGGCTGCAGGCATTAAGATAGGATTAATCTATTCAGA 1767
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DB 4168 CGTCCCCCATGCTCTGCTGTGCTGTGCTGCAATCCAAATGATCATATCTAACAGA 4227
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OY 1768 AAGAGCTCAGACATTTCTTAAGCATGGATGATGATGATGATGATGATGATGATGATG 1827
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DB 4228 GAGGAGACCTCTCAGGCTTAAGAACAGGGCGCTTCAGAGACTGTACACTGCTATTTCC 4287
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OY 4168 CGTCCCCCATGCTCTGCTGTGCTGTGCTGCAATCCAAATGATCATATCTAACAGA 4227
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OY 1828 AGAGATGCTCTGTTGGGAGAGAGAGCCCGCAGCAAGTATGTAACAAACATCCAG 1887
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DB 4288 CGGGAAC-----GGACAGGCCAAAGAAATATGTACAGAGACTGCTGCAG 4332
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OY 1888 CTTATGCGCCACAGAGTGGCCGAGAACTCTCTCCAGAGAACGCCATATTTATGTGT 1947
    ||||| ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
DB 4333 GAACAGCTGGCTGTGTGTGTACCGCGCCCTGAAGAGAGAGGCCCATTTATGTC 4392
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OY 1948 GGAGATGCAGAAATATGAGCCAGAGATGATGATGATGATGATGATGATGATGATGATG 2007
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DB 4393 TGTGGGAGACGTACCATGTGCTGTATGCTCTCAAGACCATCAGCGCATTAATGACCCAG 4452
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OY 2008 GAGGTTGAGTTGAAATAGAACCAATGAATGAAACCTGCGCATTTTAAAGAGAAAA 2067
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DB 4453 CAGGGGAAGCTCTCGAGAGAGAGACGCTGTATTCATCAGAGCGTGAAGGATGACAA 4512
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OY 2068 CGCTACCTTCAGATATTT 2086
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DB 4513 CGTACCATGAGACATCT 4531
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## RESULT 11

US-08-880-342-12  
Sequence 12, Application US/08880342  
Patent No. 6218179

GENERAL INFORMATION:  
APPLICANT: Webster, Keith A.  
TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
NUMBER OF SEQUENCES: 31  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Dehlinger & Associates  
STREET: 350 Cambridge Avenue, Suite 250  
CITY: Palo Alto  
STATE: CA  
COUNTRY: USA  
ZIP: 94306  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/880,342A  
FILING DATE: 23-DEC-1994  
CLASSIFICATION: 514  
ATTORNEY/AGENT INFORMATION:

```

1 TITLE OF INVENTION: Tissue Specific Hypoxia Regulated
2 TITLE OF INVENTION: Therapeutic Constructs
3 NUMBER OF SEQUENCES: 37
4 CORRESPONDENCE ADDRESS:
5 ADDRESSEE: Denlinger & Associates
6 STREET: 350 Cambridge Avenue, Suite 250
7 CITY: Palo Alto
8 STATE: CA
9 COUNTRY: USA
10 ZIP: 94306
11
12 COMPUTER READABLE FORM:
13 MEDIUM TYPE: Floppy disk
14 COMPUTER: IBM PC compatible
15 OPERATING SYSTEM: PC-DOS/MS-DOS
16 SOFTWARE: Patentin Release #1.0, Version #1.25
17
18 CURRENT APPLICATION DATA:
19 APPLICATION NUMBER: US/08/880,342
20 FILING DATE: 23-JUN-1997
21 CLASSIFICATION: 514
22
23 PRIOR APPLICATION DATA:
24 APPLICATION NUMBER: PCT/IB95/00996
25 FILING DATE: 13-NOV-1995
26
27 PRIOR APPLICATION DATA:
28 APPLICATION NUMBER: US 08/365,486
29 FILING DATE: 23-DEC-1994
30
31 ATTORNEY/AGENT INFORMATION:
32 NAME: Sholtz, Charles K.
33 REGISTRATION NUMBER: 38,615
34 REFERENCE/DOCKET NUMBER: 8255-0018.30
35 TELECOMMUNICATION INFORMATION:
36 TELEPHONE: (415) 324-0880
37 TELEFAX: (415) 324-0960
38
39 INFORMATION FOR SEQ ID NO: 12:
40
41 SEQUENCE CHARACTERISTICS:
42 LENGTH: 5057 base pairs
43 TYPE: nucleic acid
44 STRANDEDNESS: double
45 TOPOLOGY: linear
46
47 MOLECULE TYPE: cDNA to mRNA
48
49 HYPOTHEICAL: NO
50
51 ANTI-SENSE: NO
52
53 ORIGINAL SOURCE:
54 INDIVIDUAL ISOLATE: rat bnos cDNA
55
56 FEATURE:
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58 NAME/KEY: CDS
59 LOCATION: 349..4638
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QY	Db	QY	Db
1948	4333	2068	4513
GGAGATCGAAGAATATATGCGCCAGAGATACATGATGCCCTTGCAAAATATAAGCAA	GAACAGCTGGCTGAGTGTGTGTACCGCGCCCTGAAGGAGCAGGAGGCCACATTATATGC	CGCTACCTTCAGAGATATTT	CGGTACCAAGAGACATCT
4393	4392	2086	4531
TGTGGGACGTTACCATGAGCGCCGAGTGTCTCAAGAGCATTCAGCGCATATATACCCAG		CGGTACCTTCAGAGATATTT	
2008		2086	
GAGTTTGTGAGTTCGAAACTAGAGCATGAAACCTGGCCACTTTAAAGAGAAAAA		CGGTACCTTCAGAGATATTT	
4453		2086	
CAGGGGAACTCTAGAGAGAGACGCTGTGTATTTCATCAGCAGGCTGAGGGATGACAAC		CGGTACCTTCAGAGATATTT	
2067		2086	
GAGTTTGTGAGTTCGAAACTAGAGCATGAAACCTGGCCACTTTAAAGAGAAAAA		CGGTACCTTCAGAGATATTT	
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RESULT 12
US-07-642-002-1
: Sequence 1' Application US/07642002
: Patent No. 5268465
: GENERAL INFORMATION:
: APPLICANT: Bredt, David S.
: APPLICANT: Hwang, Paul M.
: APPLICANT: Reed, Randall
: APPLICANT: Snyder, Solomon H.
: TITLE OF INVENTION: Purification and Molecular Cloning of Nitric
: TITLE OF INVENTION: Oxide Synthase
: NUMBER OF SEQUENCES: 2
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Banner, Birch, McKie & Beckett
: STREET: One Thomas Circle, NW
: CITY: Washington
: STATE: DC
: COUNTRY: USA
: ZIP: 20005
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: PatentIn Release #1.24
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/07/642.002
: FILING DATE: 19910118
: CLASSIFICATION: 435
: ATTORNEY/AGENT INFORMATION:
: NAME: Kagan, Sarah A.
: REGISTRATION NUMBER: 32,141
: REFERENCE/DOCKET NUMBER: 1107.033576
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (202) 296-5500
: TELEFAX: (202) 296-7830
: INFORMATION FOR SEQ ID NO: 1:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 5108 base pairs
: TYPE: NUCLEIC ACID
: STRANDEDNESS: double
: TOPOLOGY: linear
: MOLECULE TYPE: cDNA
: HYPOTHETICAL: N
: ANTI-SENSE: N
: ORIGINAL SOURCE:
: ORGANISM: Rattus rattus
: TISSUE TYPE: Brain
: FEATURE:
: NAME/KEY: CDS
: LOCATION: 400..4686
: OTHER INFORMATION:
:
: Query Match 2.5%; Score 52.6; DB 1; Length 5108;
: Best Local Similarity 46.1%; Pred. NO. 1.9e-06;
: Matches 230; Conservative 0; Mismatches 254; Indels 15; Gaps 1;
US-07-642-002-1

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OY 1588 TTCCACTTACAGATGACCCCTCAATCCCATATATGTTGGGTCCAGGAACCGCATTA 1647
    ||||| ||| ||||| ||| ||| ||||| |||||
DB 4099 TTTCACGCTCCCTCGAAGACCCCGAGTGGCTTCATCCGTGTTGGCCAGGCATGTCATC 4158
    ||||| ||| ||||| ||| ||| ||||| |||||
OY 1648 GCGCCGTTTATGTTGGTCTCTACACATGAGAGAAATCTCAAGAACACACCCAGATGGA 1707
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DB 4159 GCACCCCTTCGCAAGCTCTGCGACACAGCGACATTTGACATTCACACAAAGATGAT 4218
    ||||| ||| ||||| ||| ||| ||||| |||||
OY 1708 AATTGGAGCAATGTGTTTGGTGGTGCAGGCGATTAAGATAGGATTTATCTATGCA 1767
    ||||| ||| ||||| ||| ||| ||||| |||||
DB 4219 CCGTGCCCATAGTCTCTGTGCTTGGGTGCGATCCAGATCATATATCTACAGA 4278
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OY 1768 AAGAGCTACAGCATTTCTTAAAGCATGAGATCTTAACCTAAAGTTTCTTCTCA 1827
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DB 4279 GAGAGACCCCTGCGAGCTAAGAACAAAGGCGCTTCAAGAGCTTACAGTCCATATCC 4338
    ||||| ||| ||||| ||| ||| ||||| |||||
OY 1828 AGAGATGCTCTGTTGGGAGAGAGCAACCCAGCAAGATGTATCAAGACACATCCAG 1887
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DB 4339 CGGGGAAC-----GGACAGGCCAAAGAAATATGTACAGAGCTGCTGCAG 4383
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OY 1888 CTTCATGGCCAGCAGTGGCGGAGATCTCTCCAGAGAACGGCATATTATGTGTGT 1947
    ||||| ||| ||||| ||| ||| ||||| |||||
DB 4384 GACACGCTGCGTGACTGTGTACCGCCCTGAAGAGACAGAGGCCACATTTATGTC 4443
    ||||| ||| ||||| ||| ||| ||||| |||||
OY 1948 GGAGATGCAAGAAATATGCGCAAGGATGTACATGATGCCCTTGTCAAAATATTAAGCAA 2007
    ||||| ||| ||||| ||| ||| ||||| |||||
DB 4444 TGTGGGAGAGTTTACCATGCGCGCGATGTCTCAAGAGCATCCAGCATATATGACCAG 4503
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OY 2008 GAGCTTGAGTTGAAAAAATAGAACCAATGAAGAACCTTGCGCCATTTAAAGAGAAAAA 2067
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DB 4504 CAGGGGAACCTCTCAGAGAGAGACGCTGTATTCATACAGAGCTGAGGATGACAAAC 4563
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OY 2068 CGCTACCTTCAGATATTT 2086
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DB 4564 CGGTACCAAGAGACATCT 4582
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```

# RESULT 13

US-08-936-165A-113  
Sequence 113, Application US/08936165A  
Patent No. 6348582

## GENERAL INFORMATION:

APPLICANT: Black, Michael  
APPLICANT: Burnham, Martin  
APPLICANT: Hodgson, John  
APPLICANT: Knowles, David  
APPLICANT: Lonetto, Michael  
APPLICANT: Pratt, Julie  
APPLICANT: Reichard, Richard  
APPLICANT: Rosenberg, Martin  
APPLICANT: Ward, Judith  
TITLE OF INVENTION: No. 6348582el Prokaryotic Polynucleotides,  
TITLE OF INVENTION: Polypeptides and Their Uses  
NUMBER OF SEQUENCES: 534  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: SmithKline Beecham Corporation  
STREET: 709 Swedeland Road  
CITY: King of Prussia  
STATE: PA  
COUNTRY: USA  
ZIP: 19406-0939

## COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: DOS  
SOFTWARE: FASTSEQ for Windows Version 2.0  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/936,165A  
FILING DATE: 24-SEP-1997  
CLASSIFICATION: 536  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 60/027,032

FILING DATE: 24-SEP-1996  
ATTORNEY/AGENT INFORMATION:  
NAME: Gimm, Edward R  
REGISTRATION NUMBER: 38,891  
REFERENCE/DOCKET NUMBER: P50549  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 610-270-4478  
TELEFAX: 610-270-5090  
TELEX:  
INFORMATION FOR SEQ ID NO: 113:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 1448 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: Genomic DNA  
US-08-936-165A-113

Query Match 2.4%; Score 50.2; DB 4; Length 1448;  
Best Local Similarity 58.3%; Pred. No. 5e-06;  
Matches 88; Conservative 0; Mismatches 63; Indels 0; Gaps 0;

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OY 1936 ATTATGTGTGTGATGCAAGAATATGCGCAAGATGTACATGATGCCCTGTGCAA 1995
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DB 116 ATCTATATTTGTGCGATGAAAAATGTATGGCAAGATGTCTCAAGCATTAAGAT 175
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OY 1996 ATAATACCAAGAGTGTGATGAAAAACTAGAACGAAGAAACCTGGCCACTTTA 2055
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DB 176 GTATTGTATAAAGACGTCATATTTCTCAAGAAAGAGAGATTTATTTGGACAAATG 235
    ||||| ||| ||||| ||| ||| ||||| |||||
OY 2056 AAAGAAGAAAAACGCTACCTTCAGATATTT 2086
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DB 236 AAACAACAACACGCTATCAACGATGTTT 266
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# RESULT 14

US-09-134-001C-1557  
Sequence 1557, Application US/09134001C  
Patent No. 6380370

## GENERAL INFORMATION:

APPLICANT: Lynn Doucette-Stamm et al  
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCC  
FILE REFERENCE: GTC-007  
CURRENT APPLICATION NUMBER: US/09/134,001C  
PRIOR FILING DATE: 1998-08-13  
PRIOR APPLICATION NUMBER: US 60/064,964  
PRIOR FILING DATE: 1997-11-08  
PRIOR APPLICATION NUMBER: US 60/055,779  
PRIOR FILING DATE: 1997-08-14  
NUMBER OF SEQ ID NOS: 5674  
SEQ ID NO 1557  
LENGTH: 1890  
TYPE: DNA  
ORGANISM: Staphylococcus epidermidis  
US-09-134-001C-1557

Query Match 2.4%; Score 49.4; DB 4; Length 1890;  
Best Local Similarity 48.8%; Pred. No. 1.1e-05;  
Matches 254; Conservative 0; Mismatches 231; Indels 36; Gaps 3;

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OY 1554 TAAGATATTCATCTCTCGAACAACAATCTTCCACTTACAGATGACCCCTCAAT 1613
    ||||| ||| ||||| ||| ||| ||||| |||||
DB 1389 TACAAATTCCTATCTTTTAAACGAATCCGATTTTAAGTTTCCGACAGATGATCAAC 1448
    ||||| ||| ||||| ||| ||| ||||| |||||
OY 1614 CCCATCATATATGTTGGTCCAGAACCGGATACCCCGTTTATGTTGGTCTTACACA 1673
    ||||| ||| ||||| ||| ||| ||||| |||||
DB 1449 ACCGTGTATATGATAGAGGTCGAGAGGTGTTCACCGTTTACATCTATATGCAAGA 1508
    ||||| ||| ||||| ||| ||| ||||| |||||
OY 1674 TAGAGAGAACTCCAGAACACACCCAGATGGAATTTTGGAGCAATGTGTTTGG 1733
    ||||| ||| ||||| ||| ||| ||||| |||||
DB 1509 ACGAGAGGAAT-----AGGTTTGAAGAAATATCATGTGTTATTCCTTGG 1553
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QY 1734 CTGACGAGCATAGAGATATATCTATTCAGAAAAAGCTCAGACATTTCTTACGA 1793  
DB 1554 AGATCAACACTTCTACAGATTTCTGTATCAAAAGGATGCGAAGATGCTTGAGA 1613  
QY 1794 TGGGATTTACTCATTAAGGTTTCTTCTCAAGAGATGCTCTGTTGGGAGAGGA 1853  
DB 1614 TGGAACTTATCAATAATAGATGCTTTCTTCTAGAGA--TACTGATMAAAAGTGTA 1670  
QY 1854 AGCCGACCAAGATATGATACAGACACATCCAGCTTCATGCGCAGAGGTGGCAGAT 1913  
DB 1671 TGTGACATATAAATTTGTAAGAAATAGTACACATTTATGATGATG----- 1716  
QY 1914 CCTCTCAGAGAAAGCGCCATATTTATGTTGTGAGATGCAAGAAATATGCGCAGGA 1973  
DB 1717 ---ATTGAAATGCGCTACTATTTATGTATGTGATGTAAGATMAAATGCAAGGA 1772  
QY 1974 TGTACATATGCGCTTGTGCAAAATATAAGCAAAAGGTGAGTTGAAAACTGAAGC 2033  
DB 1773 TGTATCATCAGCGATTAATAAATGTTTATATCAAAAGCAAAACCTATCTGAAACAGATGC 1832  
QY 2034 AATGAAACCTGCGCCTTTTAAAGAAAGAAAAAGCTACC 2074  
DB 1833 AGAAGATACTTAAACAAATGAAAGATTAAGATATC 1873

RESULT 15  
US-08-232-463-14

; Sequence 14, Application US/08232463  
; Patent No. 5670367

## GENERAL INFORMATION:

; APPLICANT: DORNER, F.  
; APPLICANT: SCHEFLINGER, F.  
; APPLICANT: FALKNER, F. G.  
; TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS  
; NUMBER OF SEQUENCES: 52  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Foley & Lardner  
; STREET: 1800 Diagonal Road, Suite 500  
; CITY: Alexandria  
; STATE: VA  
; COUNTRY: USA  
; ZIP: 22313-0299  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patentin Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/232.463  
; FILING DATE:  
; CLASSIFICATION: 435  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US/07/935.313  
; FILING DATE:  
; APPLICATION NUMBER: EP 91 114 300.6  
; FILING DATE: 26-AUG-1991  
; ATTORNEY/AGENT INFORMATION:  
; NAME: BENT, Stephen A.  
; REGISTRATION NUMBER: 29,768  
; REFERENCE/DOCKET NUMBER: 30472/114 IMMU  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (703)836-9300  
; TELEFAX: (703)836-4109  
; TELEX: 899149

; INFORMATION FOR SEQ ID NO: 14:

## SEQUENCE CHARACTERISTICS:

; LENGTH: 7218 base pairs  
; TYPE: nucleic acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; IMMEDIATE SOURCE:  
; CLONE: PT29pt-F15  
; US-08-232-463-14

Query Match 2.2%; Score 46.2; DB 1; Length 7218;  
Best Local Similarity 3.8%; Pred. No. 0.00032;  
Matches 15; Conservative 217; Mismatches 165; Indels 0; Gaps 0;  
QY 1227 GGCAGCCGATATATACCGCTTGTGTACGAGATGCTGTGCTGCTTGTGATCTCTCT 1286  
DB 1041 GCGTCAGAGTCAGGAGAGCTTGCATTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT 1100  
QY 1287 CGCTTCCCTTCTTGCAGCCACACCTCAGTCTCTGCTGCAACATCTTCTTAACCTCA 1346  
DB 1101 TT 1160  
QY 1347 ACCGAGCCATATGCTGTGCAAGCTCAAGTTTATTCACCGAGAAAGCTCATTTGT 1406  
DB 1161 TT 1220  
QY 1407 CTTCACATTTGTGAATTTCTGTCTACTGCGCACACAGAGTTCTGCGAAGGAGTATG 1466  
DB 1221 TT 1280  
QY 1467 TACAGGCTGCGCTGCTGTGCTTCTTCACTTCTTCAAGCAACATACATGATCCCA 1526  
DB 1281 TT 1340  
QY 1527 TGAAGACAGCGGAAAGCCCTGCTCTAAGATATCATCTCTCGAACAACAATTTC 1586  
DB 1341 TT 1400  
QY 1587 TTTCACCTTACCAAGTGAACCCCTCATGCCATCATTA 1638  
DB 1401 TT 1437

Search completed: July 29, 2003, 13:07:21  
Job time : 90.9321 secs



GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: July 29, 2003, 09:58:39 ; Search time 88.8896 Seconds  
(without alignments)  
7221.032 Million cell updates/sec

Title: US-09-371-347a-47  
Perfect score: 2093  
Sequence: 1 atgagagaggttcctgtact.....cttcagatatctgtcatcaaa 2093

Scoring table: IDENTITY\_NUC  
Gapop 10.0, Gapext 1.0

Searched: 441362 seqs, 153338381 residues

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued\_Patents\_NA:\*  
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3: /cgn2\_6/prodata/1/lna/5A\_COMB.seq:\*  
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5: /cgn2\_6/prodata/1/lna/PCTUS\_COMB.seq:\*  
6: /cgn2\_6/prodata/1/lna/backfiles1.seq:\*  
  
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2079	99.3	3259	4	US-09-318-448-23 Sequence 23, Appl
2	386.4	18.5	350	4	US-08-905-223-71 Sequence 71, Appl
3	64.6	3.1	4353	2	US-08-365-486A-18 Sequence 18, Appl
4	64.6	3.1	4353	4	US-08-880-342-18 Sequence 18, Appl
5	64.6	3.1	4780	2	US-08-365-486A-20 Sequence 20, Appl
6	64.6	3.1	4780	3	US-09-123-708-3 Sequence 3, Appl1
7	64.6	3.1	4780	3	US-09-123-624-3 Sequence 3, Appl1
8	64.6	3.1	4780	4	US-08-880-342-20 Sequence 20, Appl
9	59.8	2.9	5057	4	US-08-365-486A-12 Sequence 12, Appl
10	59.8	2.9	5057	4	US-08-880-342-12 Sequence 12, Appl
11	59.8	2.9	5108	1	US-07-642-002-1 Sequence 1, Appl1
12	56	2.7	1863	4	US-09-627-216A-13 Sequence 13, Appl
13	55.2	2.6	1890	4	US-09-134-001C-1557 Sequence 1557, Ap
14	50.2	2.4	1448	4	US-08-936-165A-113 Sequence 113, App
15	48.4	2.3	4145	4	US-09-302-620B-82 Sequence 82, Appl
16	46.8	2.2	4206	4	US-09-302-620B-81 Sequence 81, Appl
17	46.2	2.2	7218	1	US-08-232-653-14 Sequence 14, Appl
18	44	2.1	307	4	US-09-172-711-24 Sequence 24, Appl
19	43.4	2.1	7218	1	US-08-232-653-14 Sequence 14, Appl
20	40.6	1.9	382	4	US-08-976-259-78 Sequence 78, Appl
21	40.6	1.9	4041	1	US-08-147-812-4 Sequence 4, Appl1
22	40.6	1.9	4110	3	US-09-123-708-1 Sequence 1, Appl1
23	40.6	1.9	4110	3	US-09-123-624-1 Sequence 1, Appl1
24	40.6	1.9	4155	1	US-08-147-812-6 Sequence 6, Appl1
25	36.6	1.7	3701	1	US-08-553-279-1 Sequence 1, Appl1
26	36.6	1.7	4534	4	US-09-146-053-6 Sequence 6, Appl1
27	36	1.7	4089	1	US-07-908-245-1 Sequence 1, Appl1

28	36	1.7	4097	3	US-09-123-708-5 Sequence 5, Appl1
29	36	1.7	4097	3	US-09-123-624-5 Sequence 5, Appl1
30	35.4	1.7	1296	4	US-09-134-001C-1501 Sequence 1501, Ap
31	34.2	1.6	1569	1	US-08-680-726A-57 Sequence 57, Appl
32	34.2	1.6	1569	3	US-09-092-409-57 Sequence 57, Appl
33	34.2	1.6	10592	1	US-08-680-726A-51 Sequence 51, Appl
34	34.2	1.6	10592	1	US-08-680-726A-52 Sequence 52, Appl
35	34.2	1.6	10592	3	US-09-092-409-51 Sequence 51, Appl
36	34.2	1.6	10592	3	US-09-092-409-52 Sequence 52, Appl
37	34	1.6	2233	1	US-08-257-073-4 Sequence 4, Appl1
38	33.8	1.6	1702	1	US-08-261-822A-14 Sequence 14, Appl
39	33.8	1.6	1702	5	PCT-US95-07744A-14 Sequence 14, Appl
40	33.8	1.6	4146	1	US-08-261-822A-15 Sequence 15, Appl
41	33.8	1.6	4146	5	PCT-US95-07744A-15 Sequence 15, Appl
42	33.4	1.6	2193	4	US-09-427-261-2 Sequence 2, Appl1
43	33.4	1.6	2193	4	US-09-427-261-3 Sequence 3, Appl1
44	33.2	1.6	2277	1	US-08-676-967-2 Sequence 2, Appl1
45	33.2	1.6	2277	1	US-08-676-974-2 Sequence 2, Appl1

ALIGNMENTS

RESULT 1  
US-09-318-448-23  
; Sequence 23, Application US/09318448  
; Patent No. 6210950  
; GENERAL INFORMATION:  
; APPLICANT: Johnson, William G.  
; APPLICANT: Stearns, Edward S.  
; TITLE OF INVENTION: METHODS FOR DIAGNOSING, PREVENTING, AND TREATING  
; FILE REFERENCE: 601-1-057  
; CURRENT APPLICATION NUMBER: US/09/318,448  
; CURRENT FILING DATE: 1999-05-25  
; NUMBER OF SEQ ID NOS: 46  
; SOFTWARE: Patent Ver. 2.0  
; SEQ ID NO 23  
; LENGTH: 3259  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
; US-09-318-448-23

Query Match 99.3%; Score 2079; DB 4; Length 3259;  
Best Local Similarity 99.8%; Pred. No. 0;  
Matches 2093; Conservative 0; Mismatches 0; Indels 4; Gaps 1;

QY	1	ATGAGAGGTTTCTGTTACTATATGCTACACAGAGGAGGCAAGCCATCGCAGAA	60
DB	80	ATGAGAGGTTTCTGTTACTATATGCTACACAGAGGAGGCAAGCCATCGCAGAA	139
QY	61	GAATGTGTAGCAGAGCTGTGTACATGATTTTCTGACATCTTCACTATTAGTCAA	120
DB	140	GAATGTGTAGCAGAGCTGTGTACATGATTTTCTGACATCTTCACTATTAGTCAA	199
QY	121	TTCGATAGATGATGACCTAAACCGAAGAGCTCTTGTGTGTTGTTTACACAG	180
DB	200	TTCGATAGATGATGACCTAAACCGAAGAGCTCTTGTGTGTTGTTTACACAG	259
QY	181	GGCAGCGAGACCCACCGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA	240
DB	260	GGCAGCGAGACCCACCGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA	319
QY	241	CTGCGGTTATTTCTTCTGCTACCTCGGTATGGTTACTGGTCTCGGTATTCGAA	300
DB	320	CTGCGGTTATTTCTTCTGCTACCTCGGTATGGTTACTGGTCTCGGTATTCGAA	379
QY	301	TACACCTACTTTTGCATAGGGGGAAGATTAATGATTAAGACTTCAAGAGCTTGAGCC	360
DB	380	TACACCTACTTTTGCATAGGGGGAAGATTAATGATTAAGACTTCAAGAGCTTGAGCC	439
QY	361	CGGCAATTTCTATGACATGACATGACATGATGTTAGATTGATGTTGTTGAG	420

Db 440 CGGCATTCTAGACACTGACATGACATGACTGTGTAGGTTTGAACCTTGTTGAG 499  
QY 421 CCGTGATGCTGAGCTCTGGCCAGCCCTGAGAAAGCATTTTAGTCAAGCAGAGACAA 480  
Db 500 CCGTGATGCTGAGCTCTGGCCAGCCCTGAGAAAGCATTTTAGTCAAGCAGAGACAA 559  
QY 481 GAGAGATTAAGTGGCGACTCCGGGTGACATCCTGATCCTTGAAGACAGACCTTGTG 540  
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QY 541 AAGCAGAGCTGACATGATGATGATGATGATGATGATGATGATGATGATGATGATG 600  
Db 620 AAGCAGAGCTGACATGATGATGATGATGATGATGATGATGATGATGATGATGATG 679  
QY 601 AGAAGATGCTGAGGTTTGAAGCAAAATGACAGTGAACAGCAACATCAATGTTGTA 660  
Db 680 AGAAGATGCTGAGGTTTGAAGCAAAATGACAGTGAACAGCAACATCAATGTTGTA 739  
QY 661 ATTGAAGCTTTGAGTCTCCTACCTTACCCTTGGTACCCCACTCTGACAAAGCTCTGTG 720  
Db 740 ATTGAAGCTTTGAGTCTCCTACCTTACCCTTGGTACCCCACTCTGACAAAGCTCTGTG 799  
QY 721 AATATTCCTGTTTACCCCAAGATATTTACAGTACATGTCGAGAGTCTCTGGCCAG 780  
Db 800 AATATTCCTGTTTACCCCAAGATATTTACAGTACATGTCGAGAGTCTCTGGCCAG 859  
QY 781 GAGGAAAGCCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 840  
Db 860 GAGGAAAGCCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 919  
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Db 1160 CCTGGCGGATGTTCTCTCCAGTTCAATTTTACCTGCTGCTGGAATCCGAGCAATTCCT 1219  
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QY 1201 CTACAGAGAGTGTGAGTAAACAAGGGGCGAGCGGATTAAGCGGCTTTGACAGATGCC 1260  
Db 1280 CTACAGAGAGTGTGAGTAAACAAGGGGCGAGCGGATTAAGCGGCTTTGACAGATGCC 1339  
QY 1261 TGTGCGCTGTTGTGATCTCTCCAGCTTCCCTTCCCTTCCGAGCCAGCCAGCAGCTC 1320  
Db 1340 TGTGCGCTGTTGTGATCTCTCCAGCTTCCCTTCCCTTCCGAGCCAGCCAGCAGCTC 1399  
QY 1321 CTGCTCGAATCTTCTTAACCTCAACCCAGACATATTCGTGTGCAAGCTCAAGTTTA 1380  
Db 1400 CTGCTCGAATCTTCTTAACCTCAACCCAGACATATTCGTGTGCAAGCTCAAGTTTA 1459  
QY 1381 TTTCACCCAGAGAGCTCCATTTTGTCTTAACATTTGTAATTTTCTGTACTGCCACA 1440  
Db 1460 TTTCACCCAGAGAGCTCCATTTTGTCTTAACATTTGTAATTTTCTGTACTGCCACA 1519  
QY 1441 ACAGAGGTTCTGGGAGAGAGATATGACAGGCTGGCTGCTTGTGTTGCTGCTGCT 1500  
Db 1520 ACAGAGGTTCTGGGAGAGAGATATGACAGGCTGGCTGCTTGTGTTGCTGCTGCT 1579

QY 1501 CTTGAGCCAAACATACATGATCCCATGAAGACAGCGGAAAGCCCTGGCTCCTAAGATA 1560  
Db 1580 CTTGAGCCAAACATACATGATCCCATGAAGACAGCGGAAAGCCCTGGCTCCTAAGATA 1639  
QY 1561 TCCATCTCTCTGAGACAAACATTTCTTCCACTTACCAAGATGACCCCTCAATCCCATC 1620  
Db 1640 TCCATCTCTCTGAGACAAACATTTCTTCCACTTACCAAGATGACCCCTCAATCCCATC 1699  
QY 1621 ATATGCTGGTCCAGAACCCGATGACCCCTTATTTGGTCTTCAACAT ---AG 1676  
Db 1700 ATATGCTGGTCCAGAACCCGATGACCCCTTATTTGGTCTTCAACATGAGAG 1759  
QY 1677 AAATCCCAAGAACACACCCAGATGAAATTTTGGACAAATGCTGTTTGTGGCTGC 1736  
Db 1760 AAATCCCAAGAACACACCCAGATGAAATTTTGGACAAATGCTGTTTGTGGCTGC 1819  
QY 1737 AGGCATAGAGATAGGATATATCTATTGAGAAAGAGCTCAGACATTTCTTAAGCATGG 1796  
Db 1820 AGGCATAGAGATAGGATATATCTATTGAGAAAGAGCTCAGACATTTCTTAAGCATGG 1879  
QY 1797 ATCTTACTCATCTAAAGTTTCTCTCTCAAGATGCTCTCTGTGGGAGAGAAAGCC 1856  
Db 1880 ATCTTACTCATCTAAAGTTTCTCTCTCAAGATGCTCTCTGTGGGAGAGAAAGCC 1939  
QY 1857 CCAGCAAGATATGATGACAAACATCAGCTTCTGAGAGAGTGGGAGAGATCTC 1916  
Db 1940 CCAGCAAGATATGATGACAAACATCAGCTTCTGAGAGAGTGGGAGAGATCTC 1999  
QY 1917 CTCAGAGAGACGGCATATTTATGTGTGAGAGTCAAGAAATATGAGCAAGATGTA 1976  
Db 2000 CTCAGAGAGACGGCATATTTATGTGTGAGAGTCAAGAAATATGAGCAAGATGTA 2059  
QY 1977 CATGATCCCTTGGCAATATATGACAAAGAGTGGATGAAACACTGAGAGCATG 2036  
Db 2060 CATGATCCCTTGGCAATATATGACAAAGAGTGGATGAAACACTGAGAGCATG 2119  
QY 2037 AAAACCTGGCCACTTTAAAGAAAGAAAGCGTACCTTGAGATATTTGGTCAATA 2093  
Db 2120 AAAACCTGGCCACTTTAAAGAAAGAAAGCGTACCTTGAGATATTTGGTCAATA 2176

RESULT 2  
US-08-905-223-71  
Sequence 71, Application US/08905223  
Patent No. 6222029  
GENERAL INFORMATION:  
APPLICANT: Edwards, Jean-Baptiste D.  
APPLICANT: Duclert, Aymeric  
TITLE OF INVENTION: 5' ESTS FOR SECRETED PROTEINS  
NUMBER OF SEQUENCES: 503  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobbe, Martens, Olson & Bear  
STREET: 501 West Broadway  
CITY: San Diego  
STATE: California  
COUNTRY: USA  
ZIP: 92101-3505  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy Disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: Win95  
SOFTWARE: Word  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/905,223  
FILING DATE:  
CLASSIFICATION: 536  
ATTORNEY/AGENT INFORMATION:  
NAME: Israel, Ned A.  
REGISTRATION NUMBER: 29,655  
REFERENCE/DOCKET NUMBER:  
TELECOMMUNICATION INFORMATION:



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: Sequence 18 Application US/0880342
: Patent No. 6218179
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: GENERAL INFORMATION:
: APPLICANT: Webster, Keith A.
: APPLICANT: Bishopric, Nanette H.
: APPLICANT: Murphy, Brian
: APPLICANT: Laderoute, Keith R.
: APPLICANT: Green, Christopher J.
: TITLE OF INVENTION: Tissue Specific Hypoxia Regulated
: Therapeutic Constructs
: NUMBER OF SEQUENCES: 37
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Dehlinger & Associates
: STREET: 350 Cambridge Avenue, Suite 250
: CITY: Palo Alto
: STATE: CA
: COUNTRY: USA
: ZIP: 94306
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: Patentln Release #1.0, Version #1.25
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/08/880,342
: FILING DATE: 23-JUN-1997
: CLASSIFICATION: 514
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: PCT/IB95/00996
: FILING DATE: 13-NOV-1995
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: US 08/365,486
: FILING DATE: 23-DEC-1994
: ATTORNEY/AGENT INFORMATION:
: NAME: Sholtz, Charles K.
: REGISTRATION NUMBER: 38,615
: REFERENCE/DOCKET NUMBER: 8255-0018.30
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (415) 324-0880
: TELEFAX: (415) 324-0960
: INFORMATION FOR SEQ ID NO: 18:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 4353 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: double
: TOPOLOGY: linear
: MOLECULE TYPE: cDNA to mRNA
: HYPOTHEICAL: NO
: ANTI-SENSE: NO
: ORIGINAL SOURCE:
: INDIVIDUAL ISOLATE: Human NOS-1 gene, Fujisawa, et al,
: INDIVIDUAL ISOLATE: J. Neurochem 63:140 1994
: FEATURE:
: NAME/KEY: CDS
: LOCATION: 1..4305
:
: US-08-880-342-18
:
: Query Match 3.1%; Score 64.6; DB 4; Length 4353;
: Match Local Similarity 48.9%; Pred. No.2.2e-10;
: Matches 244; Conservative 0; Mismatches 239; Indels 16; Gaps 2;
:
: Oy 1588 TTCACATTACAGATGACCCCTCATATCCCATCTAATAGTGGGGTCCGGAACCGGCATA 16477
: Db 3715 TTCACCTGCCCCGGGAACCCCAAGTCCCTCGATCTCTGTGGACCAAGGCACCGGCATT 3774
: Oy 1648 GCCCCGTTTATGGGTTCTTACAACAATAGAAATCTCCAAGAA-CAACACCCAGATGGAAT 1706
: Db 3775 GCCCCTTCCGAACCTTCTGCGACACAGCGCAATTGTGATTCACAAACAAGGAATGAAC 3834
: Oy 1707 TTGTGACCAATGTGGTCTTTTTTGGCTCGCAGCGATAGAGTATAGGATTAATCTATTCGA 17666
: Db 3835 CCCTGCCCCAATGTCCTGCTTGTGGGGTCCGGCAATCCCAAGATGATCATATCTACAGG 3894

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OY	1767	AAAGAGCTCAGACATTTTCCTTAAGCATGGATCTTAACTATCTAAGAAGTTTCTTCA	1826
Db	3895	GAAAGAGACCCTTGCGAGGCCAACAGAAAGGAGGTCTTCAGAGAGCTGCACAGGCTACTCC	3954
OY	1827	AGAGATGCTCTGTTGGGAGAGAGGAAGCCACACAAGATPATAACAAGACACATCCAG	1886
Db	3955	C-----GGAGCCAGACAAACCAAAGANGTAGTCGACAGGACATCTCTCAG	3999
OY	1887	CTTCATGAGCCAGCAGGTGGCGAGATCTCTCCAGAGGAACGGCCATATTATGTGTGT	1946
Db	4000	GAGCAGCGTGGGAGGTCTGTGTACCAAGCCCTGAAGGAGCAAGGGGGCCACATATAGCTC	4059
OY	1947	GGAGATCGAAAGAATATGCGCCAGAGATGTACATCATGCTTGTGCAAAATPATAGCAAA	2006
Db	4060	TGTGGGAGCGCACCAATAGCTGTGTGATGCTCTCAAGAGCATTCAGGCATCATGACCAG	4119
OY	2007	GAGGTTGGAGTTGAAAAACTGAAAGCATGAAAACCTGGCCACTTTAAAAAGAGAAAA	2066
Db	4120	CAGGGGAAGCTCTCGGCGAGAGAGCGCGCGCTATTATTCACAGCCGATGAGGATGACAAAC	4179
OY	2067	CGTACCTTGAGATATTTT	2085
Db	4180	CGATCCATGAGGATATTT	4198

RESULT 5  
 US-08-365-486A-20  
 Sequence 20. Application US/08365486A  
 Patent No. 5834306  
 GENERAL INFORMATION:  
 APPLICANT: Webster, Keith A.  
 APPLICANT: Bishopic, Nanette H.  
 TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
 TITLE OF INVENTION: Therapeutic Constructs  
 NUMBER OF SEQUENCES: 31  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: Dehlinger & Associates  
 STREET: 350 Cambridge Avenue, Suite 250  
 CITY: Palo Alto  
 STATE: CA  
 COUNTRY: USA  
 ZIP: 94306  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: Patent In Release #1.0, Version #1.25  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/365,486A  
 FILING DATE: 23-DEC-1994  
 CLASSIFICATION: 514  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Sholtz, Charles K.  
 REGISTRATION NUMBER: 38, 615  
 REFERENCE/DOCKET NUMBER: 8255-0018  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (415) 324-0880  
 TELEFAX: (415) 324-0960  
 INFORMATION FOR SEQ. ID NO: 20:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 4780 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: double  
 TOPOLOGY: linear  
 MOLECULE TYPE: cDNA to mRNA  
 HYPOTHETICAL: NO  
 ANTI-SENSE: NO  
 ORIGINAL SOURCE:  
 INDIVIDUAL ISOLATE: Human NOS-SN gene, Nakane, et al  
 INDIVIDUAL ISOLATE: FEBS Lett 316:175 (1993)  
 FEATURE:  
 NAME/KEY: CDS  
 LOCATION: 431..4732



Db 4262 CCCTGCCCATGTCCTGCTTCGGGTGCGCCGCAATCCACATATATCTACAGG 4321  
 Oy 1767 AAGAGCTCAGACATTTCTTAAAGCATGGGATCTTAACATCTAAAGGTTCTCTCA 1826  
 Db 4322 GAAGAGACCTCGAGCCAAAGACAGGGGCTCTTAGAGAGCTGACACGGCTTACTCC 4381  
 Oy 1827 AGAGATGCTCTTGTGGGAGAGGAGAACCCCGCAAGATATGTACAGACAAATCCAG 1886  
 Db 4382 C-----GGAGAGCCAGCAAAACCAAGAGTACCTGACGACATCTGACG 4426  
 Oy 1887 CTTCATGGCCAGCAGGTGGCGAAGAACTCTCCAGAGAGAGCCATATTTATGTGTGT 1946  
 Db 4427 GAGCAGCTGGCGGAGCTGTGTGACGAGCCCTGAGAGAGAGAGGCGCCACATATACGTC 4486  
 Oy 1947 GAGATGCAAGAAATATGSCCAAGATGTACATGATGCCCTGTGCAAAATATTAAGCAAA 2006  
 Db 4487 TGTGGGAGCTCAGCATCTGCTGTGATGTCCTCAAGCCATCCAGGCAATGATGACCCAG 4546  
 Oy 2007 GAGTTGGATGGAAGAACTAGAACATGAAACCTTGCCACCTTTAAAGAGAAAA 2066  
 Db 4547 CAGGGAGAGCTCTCGGAGAGAGAGCCGCGCTATTTCATCAGCCGATGAGGATGACAAAC 4606  
 Oy 2067 CGCTACCTTCAGGATATTT 2085  
 Db 4607 CGATACCATGAGGATATTT 4625

# RESULT 8

US-08-880-342-20  
 ; Sequence 20, Application US/08880342  
 ; Patent No. 6218179  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Webster, Keith A.  
 ; APPLICANT: Bishopric, Nanette H.  
 ; APPLICANT: Murphy, Brian  
 ; APPLICANT: Laderoute, Keith R.  
 ; APPLICANT: Green, Christopher J.  
 ; TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
 ; NUMBER OF SEQUENCES: 37  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Dehlinger & Associates  
 ; STREET: 350 Cambridge Avenue, Suite 250  
 ; CITY: Palo Alto  
 ; STATE: CA  
 ; COUNTRY: USA  
 ; ZIP: 94306  
 ; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Floppy disk  
 ; COMPUTER: IBM PC compatible  
 ; OPERATING SYSTEM: PC-DOS/MS-DOS  
 ; SOFTWARE: Patentin Release #1.0, Version #1.25  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/08/880,342  
 ; FILING DATE: 23-JUN-1997  
 ; CLASSIFICATION: 514  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: PCT/IB95/00996  
 ; FILING DATE: 13-NOV-1995  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 08/365,486  
 ; FILING DATE: 23-DEC-1994  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: Sholtz, Charles K.  
 ; REGISTRATION NUMBER: 38,615  
 ; REFERENCE/DOCKET NUMBER: 8255-0018.30  
 ; TELECOMMUNICATION INFORMATION:  
 ; TELEPHONE: (415) 324-0880  
 ; TELEFAX: (415) 324-0960  
 ; INFORMATION FOR SEQ ID NO: 20:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 4780 base pairs  
 ; TYPE: nucleic acid

STRANDEDNESS: double  
 TOPOLOGY: linear  
 MOLECULE TYPE: cDNA to mRNA  
 HYPOETHERICAL: NO  
 ANTI-SENSE: NO  
 ORIGINAL SOURCE:  
 INDIVIDUAL ISOLATE: Human MOS-SN gene, Nakane, et al,  
 INDIVIDUAL ISOLATE: FEBS Lett 316:175 (1993)  
 FEATURE:  
 NAME/KEY: CDS  
 LOCATION: 431..4732  
 US-08-880-342-20

Query Match 3.1%; Score 64.6; DB 4; Length 4780;  
 Best local Similarity 48.9%; Pred. No. 2.4e-10;  
 Matches 244; Conservative 0; Mismatches 239; Indels 16; Gaps 2;

Oy 1588 TTCCACTTACAGATGACCCCTCAATCCCATATATGTTGGTGGTCCAGAACCGGCATTA 1647  
 Db 4142 TTCCACTTCCCGGAGCCCAAGATCCCTGATCTGTTGGACAGGACCGGCATTT 4201  
 Oy 1648 GCGCGTTATTGGTTCCTACACATTAACCTCAGAA-CAACACCCAGATGGAAT 1706  
 Db 4202 GCGCCTTCCGAAGCTTGTGCAACAGCGGCAATTTGATATCCACACAAAGAAATGAAC 4261  
 Oy 1707 TTTGAGCAATGTGTTGTTTGGCTGACAGCATTAAGATAGGATATCTATTTCAGA 1766  
 Db 4262 CCCTGCCCATGTGCTGTGCTTCCGGTCCGCGCAATCCAAATGATATATCTACAGG 4321  
 Oy 1767 AAGAGCTCAGACATTTCTTAAAGCATGGGATCTTAACATCTAAAGTTCTCTTCA 1826  
 Db 4322 GAAGAGACCTCTCAGGCCAAGAAAGGGGCTTTCAGAGACTGTACAGGCTTACTCC 4381  
 Oy 1827 AGAGATGCTCTGTTGGGAGAGAGAGCCCGACGAAGTATGTACAGACAAATCCAG 1886  
 Db 4382 C-----GGAGAGCCAGCAAAACCAAGAGATGTCAGAGACTGTACAGGCTTACTCC 4426  
 Oy 1887 CTTCATGGCCAGCAGGTGGCGAAGAACTCTCTCAGAGAGAGAACGCCATATTTATGTGT 1946  
 Db 4427 GAGCAGCTGGCGGAGCTGTGTGACGAGCCCTGAGAGAGAGAGGCGCCACATATACGTC 4486  
 Oy 1947 GAGATGCAAGAAATATGSCCAAGATGTACATGATGCCCTGTGCAAAATATTAAGCAAA 2006  
 Db 4487 TGTGGGAGCTCAGCATCTGCTGTGATGTCCTCAAGCCATCCAGGCAATGATGACCCAG 4546  
 Oy 2007 GAGTTGGATGGAAGAACTAGAACATGAAACCTTGCCACCTTTAAAGAGAAAA 2066  
 Db 4547 CAGGGAGAGCTCTCGGAGAGAGAGCCGCGCTATTTCATCAGCCGATGAGGATGACAAAC 4606  
 Oy 2067 CGCTACCTTCAGGATATTT 2085  
 Db 4607 CGATACCATGAGGATATTT 4625

## RESULT 9

US-08-365-486A-12  
 ; Sequence 12, Application US/08365486A  
 ; Patent No. 5834306  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Webster, Keith A.  
 ; APPLICANT: Bishopric, Nanette H.  
 ; APPLICANT: Murphy, Brian  
 ; APPLICANT: Laderoute, Keith R.  
 ; APPLICANT: Green, Christopher J.  
 ; TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
 ; NUMBER OF SEQUENCES: 31  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Dehlinger & Associates  
 ; STREET: 350 Cambridge Avenue, Suite 250  
 ; CITY: Palo Alto  
 ; STATE: CA  
 ; COUNTRY: USA  
 ; ZIP: 94306  
 ; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Floppy disk

```

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, V
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/365,486A
FILING DATE: 23-DEC-1994
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Sholtz, Charles K.
REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 8255-0018
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
TELEFAX: (415) 324-0960
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 5057 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: cDNA to mRNA
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
INDIVIDUAL ISOLATE: rat bNOS cDNA
FEATURE:
NAME/key: CDS
LOCATION: 349..4638
US-08-365-486A-12

```

Query Match	2.98;	Score 59.8;	DB 2;	length 5057;
Best Local Similarity	48.38;	Pred. No. 9.3e-09;		
Matches 241; Conservative	0;	Mismatches 242;	Indels 16;	Gaps 2

QY	1588	TTTCACCTTACCAATGACACCCCTCAATCCCATCATTAATGATGGGGTCAGGAACCGGCATTA	1647
Db	4048	TTTCACCTGCGCTCGAANACCCCGAGTGGCTTGATCTCGATCTGTTGGCCAGGCATGSGCATC	4107
QY	1548	GCCCCGTTTATTTGGGTTCTTACAAACATAGAAGACTCCAGAA-CAACACCCAGATGGAAT	1706
Db	4108	GCACCCCTTCCGMAACCTTCTGGCAGACGACAAATTGACATTCCAACAAAGGAATGAAT	4167
QY	1707	TTTGGAGCAATGCTGGTGGTTTTTGGCTGCAGGCAATAAGATPDAGGATTAATCTAATTCGA	1766
Db	4168	CCGTGCCCCCATGTGTTCTGTGTTTGGGGTGTGCACATCTCAAGATATGATCATATCTACAGA	4227
QY	1767	AAAGAGCTCAGACATTTTCCCTTAAAGCATGGATCTTAATCTCATCTAAAGGTTTCTTCACA	1828
Db	4328	GAGGAGACCCCTGCAGGCTAAGAACAAAGGGCGCTCTTACAGAGCGTGTACACGTGCGTATCC	4287
QY	1827	AGAAATGCTCTCTGTTGGGGAGGAGGAAAGCCCGACCAAGTATGTTCAGACAGACAATCCAG	1888
Db	4288	CGGGAAACC-----GGACGGCGCAAAAGAAATATGTATACAGAGCGTGTGTGAG	4333
QY	1887	CTTTCATGCGCCAGCAGTGGCGAGATCCTCCCTCCAGAGAAAGCGGCATATTTATGTGTGT	1948
Db	4333	GAACAGCTGGCTGAGTGTGTGTGTACCGGGCCCTGAAGAGCAAGAGAGGCCACATTATATTC	4392
QY	1947	GGAAATGCAAAAGAAATATGCGCCAAAGATGTACATGATGCTTGTGCAATATATAACAAA	2006
Db	4393	TGTGGGGACGTTTACCATGTGGCGCGCATGTCTCTCAAAAGCATTCACAGCGCATATATGCCAG	4452
QY	2007	GAGCTTGGAGTGTGAAAAAATCTAAGAGCAATGAAAAACCTGGCCACATTTAAAGAGAAAAA	2066
Db	4453	CAGGGAAACCTCTCAGAGGAGGAGAGCTGTGTATTATTCATCAGCAGGCTGAGGGATGACAAAC	4512
QY	2067	CGCTAACCTTACGATATTTT	2085
Db	4513	CGGTACCAACGAGGACATCT	4531

RESULT 10  
US-08-880-342-12

Sequence 12, Application US/08080342  
 Patent No. 6218179  
 GENERAL INFORMATION:  
 APPLICANT: Webster, Keith A.  
 APPLICANT: Bishopic, Nanette H.  
 APPLICANT: Murphy, Brian  
 APPLICANT: Laderoute, Keith R.  
 APPLICANT: Green, Christopher J.  
 TITLE OF INVENTION: Tissue Specific Hypoxia Regulated  
 TITLE OF INVENTION: Therapeutic Constructs  
 NUMBER OF SEQUENCES: 37  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: Dehlinger & Associates  
 STREET: 350 Cambridge Avenue, Suite 250  
 CITY: Palo Alto  
 STATE: CA  
 COUNTRY: USA  
 ZIP: 94306  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: PatentIn Release #1.0, Version #1.25  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/880,342  
 FILING DATE: 23-JUN-1997  
 CLASSIFICATION: 514  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: PCT/IB95/00996

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APPLICATION NUMBER: PCT/IB95/00996
FILING DATE: 13-NOV-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/365,486
FILING DATE: 23-DEC-1994
ATTORNEY/AGENT INFORMATION:
NAME: Scholtz, Charles K.
REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 8255-0018.30
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
TELEFAX: (415) 324-0960
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 5057 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: cDNA to mRNA
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
INDIVIDUAL ISOLATE: rat bnos cDNA
FEATURE:
NAME/KEY: CDS
LOCATION: 349..4638
US-08-880-342-12
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[illegible]

Db 4228 GAGGAGACCTCTGAGGCTAAGACAGGGCGCTTTCAGAGAGCTGTACACTGCCATTC 4287  
1827 AGAGATGCTCTGTGGGAGAGGAAGCCCGACCAAGTGTATGACAGACATCCAG 1886  
Db 4288 CGGGAAC-----GGACAGGCCAAGAAATATGTACAGAGCTGCTGAG 4332  
QY 1887 CTTGATGGCCAGCAGGTGGCAGAAATCCTCCAGAGGAAGCCCATATTTATGTGCT 1946  
Db 4333 GAACAGCTGGCTGTGTGTGTACCGGCGCTGAAGAGCAAGAGGCGCATTTATGTC 4392  
QY 1947 GGAATGCAAGAAATATGGCCAGAGATGTACATGATGCTTGTGCAAAATATAGCAA 2006  
Db 4393 TGTGGGAGCGTTTACCATGGCCGCGATGTCTCAAGGCAATCCAGCATATGACCCAG 4452  
QY 2007 GAGGTGGAGTTGAAAACTAGAACATGAAACCCGCGCTTTAAAGAGAAAA 2066  
Db 4453 CAGGGGAACCTCTAGAGAGAGGAGCGCTGTATTCATCAGCAGGCTGAGGATGACAC 4512  
QY 2067 CGCTACCTTCAGATATTT 2085  
Db 4513 CGGTACCAAGAGACATCT 4531

## RESULT 11

US-07-642-002-1

: Sequence 1, Application US/07642002  
: Patent No. 5268465

## : GENERAL INFORMATION:

: APPLICANT: Brett, David S.  
: APPLICANT: Hwang, Paul M.  
: APPLICANT: Reed, Randall  
: APPLICANT: Snyder, Solomon H.  
: TITLE OF INVENTION: Purification and Molecular Cloning of Nitric  
: NUMBER OF SEQUENCES: 2  
: CORRESPONDENCE ADDRESS:  
: ADDRESS: Banner, Birch, McKie & Beckett  
: STREET: One Thomas Circle, NW  
: CITY: Washington  
: STATE: DC  
: COUNTRY: USA  
: ZIP: 20005

## : COMPUTER READABLE FORM:

: MEDIUM TYPE: Floppy disk  
: COMPUTER: IBM PC compatible  
: OPERATING SYSTEM: PC-DOS/MS-DOS  
: SOFTWARE: Patent Release #1.24  
: CURRENT APPLICATION DATA:  
: APPLICATION NUMBER: US/07/642.002  
: FILING DATE: 19910118

## : CLASSIFICATION: 435

## : ATTORNEY/AGENT INFORMATION:

: NAME: Kagan, Sarah A.  
: REGISTRATION NUMBER: 32,141  
: REFERENCE/DOCKET NUMBER: 1107.033576  
: TELECOMMUNICATION INFORMATION:  
: TELEPHONE: (202) 296-5500  
: TELEFAX: (202) 296-7830  
: INFORMATION FOR SEQ ID NO: 1:

## : SEQUENCE CHARACTERISTICS:

: LENGTH: 5108 base pairs

: TYPE: NUCLEIC ACID

: STRANDEDNESS: double

: TOPOLOGY: linear

: MOLECULE TYPE: cDNA

: HYPOTHETICAL: N

: ANTI-SENSE: N

: ORIGINAL SOURCE:

: ORGANISM: Rattus rattus

: TISSUE TYPE: Brain

: FEATURE:

: NAME/KEY: CDS

: LOCATION: 400..4686  
: OTHER INFORMATION:  
US-07-642-002-1

## Query Match

Best Local Similarity 48.3%; Score 59.8; DB 1; Length 5108;  
Matches 241; Conservative 0; Pred. No. 9.4e-09; Mismatches 242; Indels 16; Gaps 2;

QY 1588 TTCCACTTACAGATGACCCCTCAATCCCTCAATATATGTTGGTCCAGAGACCGGCTA 1647  
Db 4099 TTCCACTTACAGATGACCCCTCAATCCCTCAATATATGTTGGTCCAGAGACCGGCTA 4158  
QY 1648 GCGCCGTTTATGGCTTCTTCAACATAGAAATCCAGAA-CAACACCCGATGGAAT 1706  
Db 4159 GCACCCCTTCCAGACTTCTGTCACACAGGACAAATTTGATTCACCAACAAAGATGAAT 4218  
QY 1707 TTTGAGCATATGTTGTTGTTTGGCTGCAAGCATTAAGATTAAGATATCTATTCAGA 1766  
Db 4219 CCGTGCCCATGTTGTTGTTGTTGCTTCCGAGTGTGACAAATCCAGATATCATATCTACAGA 4278  
QY 1767 AAAGAGCATATGTTGTTGTTTGGCTGCAAGCATTAAGATTAAGATATCTATTCAGA 1826  
Db 4279 GAGGAGACCTGTCAGGCTTAAGACAGAGGCGCTTTCAGAGAGCTGACACTGCTATATCC 4338  
QY 1827 AGAGATGCTCTGTTGGGAGAGGAAGCCCGACCAAGATATGTAACAAGACATCCAG 1886  
Db 4339 CGGGAAC-----GGACAGGCCAAGAAATATGTACAGAGCTGCTGACG 4383  
QY 1887 CTTGATGGCCAGCAGGTGGCGAGAAATCCTCTCCAGAGGAAGCCCATATTTATGTGT 1946  
Db 4384 GAACAGCTGGCTGTGTGTGTGTACCGCGCTGAAAGGAGGAGGCGCATTTATGTGTC 4443  
QY 1947 GGAATGCAAGAAATATGGCCAGAGATGTACATGATGCTTGTGCAAAATATATAGCAA 2006  
Db 4444 TGTGGGACGTTTACCATGAGCCGCGGATGTCTCAAGGCAATCCAGGCGATATATACCG 4503  
QY 2007 GAGGTGGAGTTGAAAACTAGAACATGAAACCCGCGCTTTAAAGAGAAAA 2066  
Db 4504 CAGGGGAACCTCTAGAGAGAGGAGCGCTGTGTATTCATCAGAGCTGAGGATGACAC 4563  
QY 2067 CGCTACCTTCAGATATTT 2085  
Db 4564 CGGTACCAAGAGACATCT 4582

## RESULT 12

US-09-627-216A-13

: Sequence 13, Application US/09627216A  
: Patent No. 6368837

## : GENERAL INFORMATION:

: APPLICANT: Sarlaslan, Sima F  
: APPLICANT: Tang, Xiao-Song  
: APPLICANT: Qi, Wei Wei  
: APPLICANT: Vannelli, Todd  
: APPLICANT: Galeudy, Anthony  
: TITLE OF INVENTION: Bioproduction of para-Hydroxycinnamic Acid  
: FILE REFERENCE: BCI009 US NA  
: CURRENT APPLICATION NUMBER: US/09/627.216A  
: PRIOR FILING DATE: 2000-07-27  
: PRIOR APPLICATION NUMBER: 60/147,719  
: NUMBER OF SEQ ID NOS: 14  
: SOFTWARE: Microsoft Office 97  
: SEQ ID NO 13  
: LENGTH: 1863  
: TYPE: DNA  
: ORGANISM: Helianthus tuberosus  
US-09-627-216A-13

## Query Match

Best Local Similarity 49.0%; Score 56; DB 4; Length 1863;  
Matches 253; Conservative 0; Pred. No. 8.4e-08; Mismatches 240; Indels 23; Gaps 3;



OY 1576 ACAACAAATCTTCCACTTACAGATGACCCCTCAATCCCATCATTAATGGTGGTCA 1635  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1276 AGAACATCGAATCTTACAGACTTCCAGAGTACCCCTAAAGCCGGTATCATATTTGGCCT 1335  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1636 GGAACGGCATAGCCCCGTTTATTGGTCTTACACATAGAAATCCACAGACACACC 1695  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1336 GGAACCGGGTGGCTCCGTTTATAGAGTTTCTTCAAGAAAGATTAGCTCTCAAGAAATCT 1395  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1696 CAGATGAAATTTTGGAGCATGTGTTTGTGCTGAGGACATTAAGATAGGATTT 1755  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1396 GGAACCGAATC--GGTCAATCCATTTTGTCTTGGTGCAGAAACCGTAAGTGATTT 1453  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1756 ATCTATTGAGAAAGAGCTCAGACATTTCTTAAGCATGGGATCTTAATCATCTAAAG 1815  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1454 TCATATTATGAGAAATGAACTGAAACAATTTGTTGAAATATGGGCGCTTTCCAGAGTTGACA 1513  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1816 TTTCTCTCTCAAGAGATGCTCTCTTGGGAGAGAGAGCCCGCAAGATATATACAG 1875  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1514 TGGCTTTCTCTCCG-----GAAAGGGCATCTTAAGAAATACCTGCAAC 1555  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1876 ACAATCCAGCTTCATGAGCCAGCAGGAGGAGAAATCCCTCCAGAGAGAGCCCATTA 1935  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1556 ATAAATGAGCCAAAGAGCTTCGATAT--ATGGAATATCTTTCTGAGGAGCATATCT 1612  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1936 TTTATGTGTGAGATGCAAAAGATATGGCCAGATGATGATGCTTGTGCAAA 1995  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1613 TATACGTGTGTGATGATGCCAAAGCATGCTTAAGATGTAACCGAACCCTTCACACCA 1672  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1996 TAATAAGCAAGAGTGGAGTTGAAATAGAAACATAGAAACCTGGCCACTTTAA 2055  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1673 TTGTGCAAGAACAGGGAATTTGGATTCTCTAAAGCAGACCTGATGTGAAGATCTAC 1732  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 2056 AAGAAGAAAAAGCTTACCTTCAGATATTTGGTCAAT 2091  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1733 AATGTGGGGAAGATACCTCCGTATGTTTGGTCAAT 1768  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111

## RESULT 13

US-09-134-001C-1557  
Sequence 1557, Application US/09134001C  
Patent No. 6380370  
GENERAL INFORMATION:  
APPLICANT: Lynn Doucelte-Stamm et al  
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS  
FILE REFERENCE: GTC-007  
CURRENT APPLICATION NUMBER: US/09/134,001C  
CURRENT FILING DATE: 1998-08-13  
PRIOR APPLICATION NUMBER: US 60/064,964  
PRIOR FILING DATE: 1997-11-08  
PRIOR APPLICATION NUMBER: US 60/055,779  
PRIOR FILING DATE: 1997-08-14  
NUMBER OF SEQ ID NOS: 5674  
SEQ ID NO 1557  
LENGTH: 1890  
TYPE: DNA  
ORGANISM: Staphylococcus epidermidis  
US-09-134-001C-1557

Query Match 2.6%, Score 55.2; DB 4; Length 1890;  
Best Local Similarity 49.4%; Pred. No. 1.6e-07;  
Matches 257; Conservative 0; Mismatches 228; Indels 35; Gaps 3;

OY 1554 TAAGATATCCATCTCTCTCGACACACAATTTCTTCCACTTACAGATGACCCCTCAAT 1613  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1389 TACATATCTTATCTTATTAAGACAAATTTTAAGTTTCCGCAAGATGATCAAC 1448  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1614 CCCCATCATATGTTGGTCCAGAACCGCATAGCCGTTTATTTGGGTTCTTACACA 1673  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1449 ACCGTGTATATGATAGTCTCTGGACAGGTGTTGCACCGTTT-----AGA 1494  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1674 TAGAAACTCCAAAGAACACACCCAGATGAAATTTTGGAGCAATGTGTTGTTTGGC 1733  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111

DB 1495 TCCTATATGCAAGACAGAGAACTAGTCTTTGAGAAATATACATGTTATTTCTTTGA 1554  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1734 TGCAGGATATAGATAGGATTTATCTATTCGAAGAACGCTCACATTTCTTAACAT 1793  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1555 GATCAACACTTCTACTACAGATTTCTGTATCAACAGAAATGGCAAGATGCTTGAAGAT 1614  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1794 GGGATTTTAATCTATTAAGGTTTCCCTTCAAGAGATGCTCTGTTGGGAGAGAA 1853  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1615 GGAATTTATCAAAATTAAGATGTTGCTTTTCTAGAGA---TACTGATAAAAAGTGTAT 1671  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1854 GCCCCAGCAAGATATGTAACAGACATCCAGCTTCATGCGCCAGAGGTGGCAGAAATC 1913  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1672 GTGCAACATATAAATTTAGAAATATGTAACAAATTTAATCGATG----- 1716  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1914 CTCCTCCAGGAAGCGCCATATTAATGTGTGATGATGCAATGCAAGAAATATGCCAAGAT 1973  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1717 ---ATTGAAATATGCGCTACTATTTATGTATGTGTGTAAGATTAAGTGAAGAT 1773  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 1974 GTACATGATGCCCTTGTGCAAAATTAAGCAAGAGGTTGGAGTTGAAAACTAGAACGA 2033  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1774 GTTCATCAAGGATTTAAATATGTGTTATCAAGAGCAAAACCTATCTGAACAGATGCA 1833  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
OY 2034 ATGAACACCTGGCCACTTTTAAAGAGAAACAGCTTACC 2073  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111  
DB 1834 GAAGATATCTTAAACAAATGAAAAAGATTAAGATATTC 1873  
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111

## RESULT 14

US-08-936-165A-113  
Sequence 113, Application US/08936165A  
Patent No. 6348582  
GENERAL INFORMATION:  
APPLICANT: Black, Michael  
APPLICANT: Burnham, Martin  
APPLICANT: Hodgson, John  
APPLICANT: Knowles, David  
APPLICANT: Lonetto, Michael  
APPLICANT: Nicholas, Richard  
APPLICANT: Pratt, Julie  
APPLICANT: Reichard, Richard  
APPLICANT: Rosenberg, Martin  
APPLICANT: Ward, Judith  
TITLE OF INVENTION: No. 6348582el Prokaryotic Polynucleotides,  
NUMBER OF SEQUENCES: 534  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: SmithKline Beecham Corporation  
STREET: 709 Swedeland Road  
CITY: King of Prussia  
STATE: PA  
COUNTRY: USA  
ZIP: 19406-0939  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: DOS  
SOFTWARE: FASTSEQ for Windows Version 2.0  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/936,165A  
FILING DATE: 24-SEP-1997  
CLASSIFICATION: 536  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 60/027,032  
FILING DATE: 24-SEP-1996  
ATTORNEY/AGENT INFORMATION:  
NAME: Gimm, Edward R  
REGISTRATION NUMBER: 38,891  
REFERENCE/DOCKET NUMBER: P50549  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 610-270-4478  
TELEFAX: 610-270-5090  
TELEX:  
INFORMATION FOR SEQ ID NO: 113:



GenCore version 5.1.6  
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OW nucleic - nucleic search, using sw model

Run on: July 29, 2003, 10:56:19 ; Search time 424.273 Seconds  
(without alignments)  
10177.082 Million cell updates/sec

Title: US-09-371-347a-47  
Perfect score: 2093  
Sequence: 1 atgagagaggttccttact.....ttcagatattgtcattaa 2093

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 1439767 seqs, 1031500376 residues

Total number of hits satisfying chosen parameters: 2879534

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Published\_Applications\_NA:\*

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- 2: /cgn2\_6/ptodata/2/pubpna/PCR\_NEW\_PUB.seq:\*
- 3: /cgn2\_6/ptodata/2/pubpna/US06\_NEW\_PUB.seq:\*
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- 17: /cgn2\_6/ptodata/2/pubpna/US10\_PUBCOMB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2093	100.0	2093	US-09-371-347-47	Sequence 47, Appl
2	2079	99.3	2097	US-09-371-347-1	Sequence 1, Appl
3	2079	99.3	3259	US-09-371-347-24	Sequence 24, Appl
4	2077.4	99.3	2097	US-09-371-347-41	Sequence 41, Appl
5	2077.4	99.3	2097	US-09-371-347-43	Sequence 43, Appl
6	2063	98.6	2094	US-09-371-347-45	Sequence 45, Appl
7	174.4	8.3	2475	US-09-909-567B-38	Sequence 38, Appl
8	83	4.0	1872	US-09-917-800A-1351	Sequence 1351, Ap
9	83	4.0	2401	US-09-917-800A-1357	Sequence 1357, Ap
10	79.6	3.8	101	US-09-783-590-1364	Sequence 1364, Ap
11	65	3.1	298	US-09-294-093B-4842	Sequence 4842, Ap
12	64	3.1	230	US-09-923-876-2845	Sequence 2845, Ap
13	60.4	2.9	2470	US-09-832-849A-278	Sequence 278, App
14	58.4	2.8	2136	US-09-938-842A-803	Sequence 803, App
15	56	2.7	1863	US-09-765-873A-13	Sequence 13, Appl
16	55.6	2.7	2403	US-09-880-107-3039	Sequence 3039, Ap

17	53	2.5	411	10	US-09-925-299-440	Sequence 440, App
18	53	2.5	411	12	US-09-925-299-440	Sequence 440, App
19	52.8	2.5	13508	8	US-08-781-986A-120	Sequence 120, App
20	51.4	2.5	2088	15	US-10-128-714-7234	Sequence 7234, App
21	50.2	2.4	1448	15	US-09-939-980-113	Sequence 113, App
22	48.4	2.3	1944	10	US-10-272-017A-4	Sequence 4, Appl1
23	48.4	2.3	3037	10	US-09-911-781-10	Sequence 10, Appl1
24	48.4	2.3	4145	10	US-09-911-781-3	Sequence 3, Appl1
25	48.4	2.3	4145	12	US-09-976-800-82	Sequence 82, Appl1
26	48.4	2.3	4145	15	US-10-138-838-82	Sequence 82, Appl
27	48.4	2.3	4145	15	US-10-139-031-82	Sequence 82, Appl
28	48.4	2.3	4145	15	US-10-138-905-82	Sequence 82, Appl
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33	47.2	2.3	1845	15	US-10-128-714-2234	Sequence 2234, Ap
34	47.2	2.3	2145	15	US-10-128-714-6234	Sequence 6234, Ap
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40	46.8	2.2	4206	15	US-10-138-838-81	Sequence 81, Appl1
41	46.8	2.2	4206	15	US-10-139-031-81	Sequence 81, Appl1
42	46.8	2.2	4206	15	US-10-138-905-81	Sequence 81, Appl1
43	46.8	2.2	4206	15	US-10-138-916-81	Sequence 81, Appl1
44	46.6	2.2	1989	11	US-09-974-300-2023	Sequence 2023, Ap
45	44	2.1	640681	11	US-09-790-988-1	Sequence 1, Appl1

## ALIGNMENTS

US-09-371-347-47	Sequence 47, Application US/09371347
US-09-371-347-1	Publication No. US20030082676A1
GENERAL INFORMATION:	
APPLICANT:	Roy A. Gravel et al.
TITLE OF INVENTION:	HUMAN METHIONINE SYNTHASE REDUCTASE:
TITLE OF INVENTION:	CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE
TITLE OF INVENTION:	DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER
FILE REFERENCE:	50004/003003
CURRENT APPLICATION NUMBER:	US/09/371,347
CURRENT FILING DATE:	1999-08-10
PRIOR APPLICATION NUMBER:	60/071,622
PRIOR FILING DATE:	1998-01-16
PRIOR APPLICATION NUMBER:	09/232,028
PRIOR FILING DATE:	1999-01-15
NUMBER OF SEQ ID NOS:	51
SOFTWARE:	FastSeq for Windows Version 4.0
SEQ ID NO 47	
LENGTH:	2093
TYPE:	DNA
ORGANISM:	Homo sapiens
US-09-371-347-47	
Query Match	100.0% Score 2093; DB 12; Length 2093;
Best Local Similarity	100.0% Pred. No. 0;
Matches 2093: Conservative	0; Mismatches 0; Indels 0; Gaps 0;
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121 TCCGATTAAGTATGACCTAAACGAAACAGCTCTCTGTGTTGTGCTTACACAG	180

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RESULT 2  
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; Sequence 1, Application US/09371347  
; Publication No. US20030082676A1  
; GENERAL INFORMATION:  
; APPLICANT: Roy A. Gravel et al.  
; TITLE OF INVENTION: HUMAN METHYLONLINE SYNTHASE REDUCTASE:  
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
; TITLE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER  
; FILE REFERENCE: 50004/003003  
; CURRENT FILING DATE: 1999-08-10  
; PRIOR APPLICATION NUMBER: 60/071,622  
; PRIOR FILING DATE: 1998-01-16  
; PRIOR APPLICATION NUMBER: 09/232,028  
; PRIOR FILING DATE: 1999-01-15

NUMBER OF SEQ ID NOS: 51  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 1  
LENGTH: 2097  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-371-347-1

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Best Local Similarity 99.8%; Pred. No. 0;  
Matches 2093; Conservative 0; Mismatches 0; Indels 4; Gaps 1;

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901 TCAAAATACAGACTTTTCTATCAGCCTTGAGATGCTTCAAGCGTATCTGCCCTAACAT 960

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1977 CATGATGCCCTTGTCAAAATTAATTAAGCAAAAGAGTTGAGTTGAAAACTAGAACCAATG 2036  
1977 CATGATGCCCTTGTCAAAATTAATTAAGCAAAAGAGTTGAGTTGAAAACTAGAACCAATG 2036

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Db      1981 CATGATGCCCTGTGCAAAATATATAGCAAGAGTTGAGTTGAAAACTAGAACGATG 2040
OY      2037 AAAACCTGCGCCACTTTAAAGAGAAAAAGCGCTACTCTCAGATATTTGGTCATA 2093
Db      2041 AAAACCTGCGCCACTTTAAAGAGAAAAAGCGCTACTCTCAGATATTTGGTCATA 2097

RESULT 3
US-09-371-347-24
; Sequence 24, Application US/09371347
; Publication No. US20030082676A1
; GENERAL INFORMATION:
; APPLICANT: Roy A. Gravel et al.
; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:
; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE
; FILE REFERENCE: 50004/003003
; CURRENT APPLICATION NUMBER: US/09/371,347
; PRIOR FILING DATE: 1999-08-10
; PRIOR APPLICATION NUMBER: 60/071,622
; PRIOR FILING DATE: 1998-01-16
; PRIOR APPLICATION NUMBER: 09/232,028
; PRIOR FILING DATE: 1999-01-15
; NUMBER OF SEQ ID NOS: 51
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO: 24
; LENGTH: 3259
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-371-347-24

Query Match      99.3%; Score 2079; DB 12; Length 3259;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 2093; Conservative 0; Mismatches 0; Indels 4; Gaps 1;

OY      1  ATGAGAGGTTCTGTACTATATGTACACAGAGGACAGGCAAGGCCATCGCAGA 60
Db      80  ATGAGAGGTTCTGTACTATATGTACACAGAGGACAGGCAAGGCCATCGCAGA 139
OY      61  GAAATGTGTAGACCAAGCTGTGTACATGATTTTTCAGATCTTCACTGATTAAGTGA 120
Db      140  GAAATGTGTAGACCAAGCTGTGTACATGATTTTTCAGATCTTCACTGATTAAGTGA 199
OY      121  TCCGAAATAGTACCTAAACCCGAAAGAGCTCCTCTTGTGTGTGTTCTACACAG 180
Db      200  TCCGAAATAGTACCTAAACCCGAAAGAGCTCCTCTTGTGTGTGTTCTACACAG 259
OY      181  GGCACCGAGACCCACCCGACACAGCCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240
Db      260  GGCACCGAGACCCACCCGACACAGCCCGCAAGTTTGTAAAGAAATACAGAACCAACA 319
OY      241  CTGCGGTTGATTTCTTCTCCTACCTGCGGTATGGGTTACTGGTCTCGGTATTCAGA 300
Db      320  CTGCGGTTGATTTCTTCTCCTACCTGCGGTATGGGTTACTGGTCTCGGTATTCAGA 379
OY      301  TACACCTACTTTTGAATGGGGGGAAGATTAATTGATTAACGACTTCAGAGCTTGAGCC 360
Db      380  TACACCTACTTTTGAATGGGGGGAAGATTAATTGATTAACGACTTCAGAGCTTGAGCC 439
OY      361  CGGCAATTTCTATGACATGACATGACATGATGATGATTTGAATTTGGTGTGAG 420
Db      440  CGGCAATTTCTATGACATGACATGACATGATGATGATTTGAATTTGGTGTGAG 499
OY      421  CCGTGGATTTGCTGACTGTGGCAGCCCTCAGAAAGCATTTTAAAGTCAAGAGAGACA 480
Db      500  CCGTGGATTTGCTGACTGTGGCAGCCCTCAGAAAGCATTTTAAAGTCAAGAGAGACA 559
OY      481  GAGGAGATTAAGTGGGCACTCCCGGTGATCATCTGATCTTTAAGAGCAGACCTTGTG 540
Db      560  GAGGAGATTAAGTGGGCACTCCCGGTGATCATCTGATCTTTAAGAGCAGACCTTGTG 619
OY      541  AAGTGAAGCTCTACATTAATCTCAAGTGAAGCTTCTGAGATTTGATGATTCAGGA 600

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Db      620  AAGTCAGAGCTCTACACATTAATCTCAAGTGAAGCTTCTGAGATTCGATGATTCAGA 679
OY      601  ACAAGAGATTCGAGGTTTGAAGCAAAATGCAAGCAACAGAACCAATCAATGTGTA 660
Db      680  AGAAGAGATTCGAGGTTTGAAGCAAAATGCAAGCAACAGAACCAATCAATGTGTA 739
OY      661  ATTGAAGATTCGAGGTTTGAAGCAAAATGCAAGCAACAGAACCAATCAATGTGTA 720
Db      740  ATTGAAGATTCGAGGTTTGAAGCAAAATGCAAGCAACAGAACCAATCAATGTGTA 799
OY      721  AATATTCCTGTTTACCCCAATATTTACAGATACATCTCAGAGAGTCTTGGCCAG 780
Db      800  AATATTCCTGTTTACCCCAATATTTACAGATACATCTCAGAGAGTCTTGGCCAG 859
OY      781  GAGAAAGCAAGTATCTGACTCAGAGATCCAGTTTTCAGATGCAATTCGAAG 840
Db      860  GAGAAAGCAAGTATCTGACTCAGAGATCCAGTTTTCAGATGCAATTCGAAG 919
OY      841  GCAGTTCAACTTACATACGAATGATGCCATMAAACCACTCTCTGTGATTAATGACATT 900
Db      920  GCAGTTCAACTTACATACGAATGATGCCATMAAACCACTCTCTGTGATTAATGACATT 979
OY      901  TCAATACAGACTTTTCTATACGCTGAGATGCTTCCAGGTGATCTGCCCTAACAGT 960
Db      980  TCAATACAGACTTTTCTATACGCTGAGATGCTTCCAGGTGATCTGCCCTAACAGT 1039
OY      961  GATTCGAGTCAAAAGCTCTACCAAGACCTGAGATGATTAAGTAAAGAGACATGCG 1020
Db      1040  GATTCGAGTCAAAAGCTCTACCAAGACCTGAGATGATTAAGTAAAGAGACATGCG 1099
OY      1021  GTCTTTTGAATTAAGGACAGACACAAAGAAAGAGAGTACTTACCCAGCATATA 1080
Db      1100  GTCTTTTGAATTAAGGACAGACACAAAGAAAGAGAGTACTTACCCAGCATATA 1159
OY      1081  CCGGCGGAGTGTCTCTCAGTTCAATTTTACCTGCTGTGTAATCCAGACATTCCT 1140
Db      1160  CCGGCGGAGTGTCTCTCAGTTCAATTTTACCTGCTGTGTAATCCAGACATTCCT 1219
OY      1141  AAAAAGGCAATTTTTCGAGACCCCTGTGACATTAACAGAGAGAGTGAAGAGCGAGG 1200
Db      1220  AAAAAGGCAATTTTTCGAGACCCCTGTGACATTAACAGAGAGAGTGAAGAGCGAGG 1279
OY      1201  CTACAGAGCTGTGACATTAACAGAGGAGCGGATTAAGCGCTTTGTACAGATGCC 1260
Db      1280  CTACAGAGCTGTGACATTAACAGAGGAGCGGATTAAGCGCTTTGTACAGATGCC 1339
OY      1261  TGTGCTGCTGTTGTGATCTCTCCGCTTTCCTCTGTCGACACCACTCAGTCTC 1320
Db      1340  TGTGCTGCTGTTGTGATCTCTCCGCTTTCCTCTGTCGACACCACTCAGTCTC 1399
OY      1321  CTGCTCGAATCTTCTAAATCTCAACCCAGACCATATGCTGTGCAAGCTCAAGTTTA 1380
Db      1400  CTGCTCGAATCTTCTAAATCTCAACCCAGACCATATGCTGTGCAAGCTCAAGTTTA 1459
OY      1381  TTTTCAACCAAGAAAGCTCATTTTGTCTTCAACATTTGGAATTTCTGTCTACGCCACA 1440
Db      1460  TTTTCAACCAAGAAAGCTCATTTTGTCTTCAACATTTGGAATTTCTGTCTACGCCACA 1519
OY      1441  ACAGAGGTTCTGCGAAGGAGATGTACAGGCTGCGGCTGCTTGGTGTGCTCACTT 1500
Db      1520  ACAGAGGTTCTGCGAAGGAGATGTACAGGCTGCGGCTGCTTGGTGTGCTCACTT 1579
OY      1501  CTTACGCCAATCATGATCATCCCATGAAGACACGCGGAAAGCCCTGGCTCTTAAGATA 1560
Db      1580  CTTACGCCAATCATGATCATCCCATGAAGACACGCGGAAAGCCCTGGCTCTTAAGATA 1639
OY      1561  TCCATCTCTCTCGAACAACAATTTCTTCACTTACAGATGACCCCTCAATCCCATTC 1620
Db      1640  TCCATCTCTCTCGAACAACAATTTCTTCACTTACAGATGACCCCTCAATCCCATTC 1699
OY      1621  AATATGGGAGTCCAGAAACCGGCAATAGCCCGTTATTTGGGTTCTCAACAT---AG 1676
Db      1700  AATATGGGAGTCCAGAAACCGGCAATAGCCCGTTATTTGGGTTCTCAACATAGAGAG 1759

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OY 1677 AAACATCAAGAACACACCCAGATGAAATTTTGGAGCAATGTGTTTGGTTC 1736  
DB 1760 AAACATCAAGAACACACCCAGATGAAATTTTGGAGCAATGTGTTTGGTTC 1819  
OY 1737 AGGCATTAAGAGTAGGATTTATCTATTCAGAAAAAGAGCTCAGACATTTCTTAAGCATGG 1796  
DB 1820 AGGCATTAAGAGTAGGATTTATCTATTCAGAAAAAGAGCTCAGACATTTCTTAAGCATGG 1879  
OY 1797 ATCTTAACATCTAAAGTTTCTTCTTCAGAGATGCTCCTGTTGGGAGAGAGAGCC 1856  
DB 1880 ATCTTAACATCTAAAGTTTCTTCTTCAGAGATGCTCCTGTTGGGAGAGAGAGCC 1939  
OY 1857 CCAGCAAGATATGACAGACAAATCCAGCTTCATGAGCAGAGAGAGAGAGATCTC 1916  
DB 1940 CCAGCAAGATATGACAGACAAATCCAGCTTCATGAGCAGAGAGAGAGATCTC 1999  
OY 1917 CTCAGAGAGAGAGAGAGAGATTTATGTGTGAGATGCAAGAAATATGAGCATGTA 1976  
DB 2000 CTCAGAGAGAGAGAGAGAGATTTATGTGTGAGATGCAAGAAATATGAGCATGTA 2059  
OY 1977 CATGATGCCCTGTGCAATTAATAGCAAGAGGTGGAGTGAAGAACTAGAGCAATG 2036  
DB 2060 CATGATGCCCTGTGCAATTAATAGCAAGAGGTGGAGTGAAGAACTAGAGCAATG 2119  
OY 2037 AAACCCCTGGCCACTTTTAAAGAAAAAAGCAAAACCTTACCTTCAGATATTTGTCATTA 2093  
DB 2120 AAACCCCTGGCCACTTTTAAAGAAAAAAGCAAAACCTTACCTTCAGATATTTGTCATTA 2176

RESULT 4  
US-09-371-347-41

Sequence 41, Application US/09371347  
Publication No. US20030082676A1  
GENERAL INFORMATION:  
APPLICANT: Roy A. Gravel et al.  
TITLE OF INVENTION: HUMAN MENTIONINE SYNTHASE REDUCTASE:  
TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
FILE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER  
FILE REFERENCE: 50004/003003  
CURRENT APPLICATION NUMBER: US/09/371,347  
CURRENT FILING DATE: 1999-08-10  
PRIOR APPLICATION NUMBER: 60/071,622  
PRIOR FILING DATE: 1998-01-16  
PRIOR APPLICATION NUMBER: 09/232,028  
PRIOR FILING DATE: 1999-01-15  
NUMBER OF SEQ ID NOS: 51  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 41  
LENGTH: 2097  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-371-347-41

Query Match 99.3%; Score 2077.4; DB 12; Length 2097;  
Best Local Similarity 99.8%; Pred. No. 0;  
Matches 2092; Conservative 0; Mismatches 1; Indels 4; Gaps 1;

OY 1 ANGAGAGGTTCTGTACTATATGCTACACAGAGGAGGAGCAAAAGCCATCCGAGAA 60  
DB 1 ANGAGAGGTTCTGTACTATATGCTACACAGAGGAGGAGCAAAAGCCATCCGAGAA 60  
OY 61 GAATGTGTGAGCAAGCTGTGTACATGATTTTTCAGAGATCTTCACTGTATTAAGTGA 120  
DB 61 GAATGTGTGAGCAAGCTGTGTACATGATTTTTCAGAGATCTTCACTGTATTAAGTGA 120  
OY 121 TCCGATTAAGTATGACCTAAACCGAAGAGCTCTTGTGTGTGTGTCTACACAG 180  
DB 121 TCCGATTAAGTATGACCTAAACCGAAGAGCTCTTGTGTGTGTGTCTACACAG 180  
OY 181 GGCACCGGAGACCCAGCCGACACAGCCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240  
DB 181 GGCACCGGAGACCCAGCCGACACAGCCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240

OY 241 CTGCCGGTTGATTTCTTTGCTACCTGGGATATGGGTTACGGGTCTGGTATTCAGAA 300  
DB 241 CTGCCGGTTGATTTCTTTGCTACCTGGGATATGGGTTACGGGTCTGGTATTCAGAA 300  
OY 301 TACACCTACTTTTGGCAATGGGGGAAAGATTAATTAACGACTTCAGAGCTTGAGCC 360  
DB 301 TACACCTACTTTTGGCAATGGGGGAAAGATTAATTAACGACTTCAGAGCTTGAGCC 360  
OY 361 CGGCAATTTCTATGACACTGGACATGACATGACTGTATGAGTTTGAAGTTGTGAG 420  
DB 361 CGGCAATTTCTATGACACTGGACATGACATGACTGTATGAGTTTGAAGTTGTGAG 420  
OY 421 CCGTGATGCTGGAGCTGGGAGCCCTCAGAAAGCATTTTATAGTCAAGAGAGACAA 480  
DB 421 CCGTGATGCTGGAGCTGGGAGCCCTCAGAAAGCATTTTATAGTCAAGAGAGACAA 480  
OY 481 GAGAGATTAAGTGGGACACTCCGGTGGCATCCTGCATCTTGTAGAGACAGACCTTGTG 540  
DB 481 GAGAGATTAAGTGGGACACTCCGGTGGCATCCTGCATCTTGTAGAGACAGACCTTGTG 540  
OY 541 AAGTCAAGACTCTACACTTAATCTCAAGTCAAGTCTTCAAGATTCATATTCAGAGA 600  
DB 541 AAGTCAAGACTCTACACTTAATCTCAAGTCAAGTCTTCAAGATTCATATTCAGAGA 600  
OY 601 AGAAGGATTTGAGGTTTGAAGCAAAATGCAAGAGCAAGCAACCAATCCAAATGTTGA 660  
DB 601 AGAAGGATTTGAGGTTTGAAGCAAAATGCAAGAGCAAGCAACCAATCCAAATGTTGA 660  
OY 661 ATTGAAGACTTTGAGTCTCCTACCTACCCCTTGGATACCCCACTCTCACAGCTCTCTG 720  
DB 661 ATTGAAGACTTTGAGTCTCCTACCTACCCCTTGGATACCCCACTCTCACAGCTCTCTG 720  
OY 721 AATATTCTCGTTTACCCCAATATTTTACAGATACATCTCAGAGAGCTCTTGGCCAG 780  
DB 721 AATATTCTCGTTTACCCCAATATTTTACAGATACATCTCAGAGAGCTCTTGGCCAG 780  
OY 781 GAGGAAAGCAAGTATCTGTGACTCAGAGATCCAGTTTCAAGTGGCAATTTCAAG 840  
DB 781 GAGGAAAGCAAGTATCTGTGACTCAGAGATCCAGTTTCAAGTGGCAATTTCAAG 840  
OY 841 GCAGTTCAACTTACTACGAATGATGCAATTAACCACTCTCTGTAGAAATTTGACAT 900  
DB 841 GCAGTTCAACTTACTACGAATGATGCAATTAACCACTCTCTGTAGAAATTTGACAT 900  
OY 901 TCAATATCAGACTTTTCTATCAGCTTGAGATGCTTACAGGATGATCTGCTTACACT 960  
DB 901 TCAATATCAGACTTTTCTATCAGCTTGAGATGCTTACAGGATGATCTGCTTACACT 960  
OY 961 GATTCGAGTCAAAAGCTTACCTCAAAAGACTGAGCTTGAAGATTAAGAGAGCACTGC 1020  
DB 961 GATTCGAGTCAAAAGCTTACCTCAAAAGACTGAGCTTGAAGATTAAGAGAGCACTGC 1020  
OY 1021 GTCTTTTGAATAAAGGAGAGACACAAAGAAAGAGAGTACTTACCCAGCATATA 1080  
DB 1021 GTCTTTTGAATAAAGGAGAGACACAAAGAAAGAGAGTACTTACCCAGCATATA 1080  
OY 1081 CCTGGGAGTGTCTCTCAGTTTCTCAGTTTCTTACCTGTGCTTGAATAATCCGACAAATCT 1140  
DB 1081 CCTGGGAGTGTCTCTCAGTTTCTCAGTTTCTTACCTGTGCTTGAATAATCCGACAAATCT 1140  
OY 1141 AAAAAGCAATTTTGGAGACCTTGTGAGCTTATACAGAGAGAGTCTGAAAAGGCGAG 1200  
DB 1141 AAAAAGCAATTTTGGAGACCTTGTGAGCTTATACAGAGAGAGTCTGAAAAGGCGAG 1200  
OY 1201 CTACAGAGACTGTGAGTAAACAGAGGAGCGGATTAAGCCCTTTGTACAGATGCG 1260  
DB 1201 CTACAGAGACTGTGAGTAAACAGAGGAGCGGATTAAGCCCTTTGTACAGATGCG 1260  
OY 1261 TGTGCTGCTGTGTGATCTCTCTCTGCTTCCCTTCTTGGCAGGACACACTCACTGCTC 1320  
DB 1261 TGTGCTGCTGTGTGATCTCTCTCTGCTTCCCTTCTTGGCAGGACACACTCACTGCTC 1320



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OY 1321 CTGCTCGACATCTTCTTAACCTTAACCCAGACCAATTTGTGTGCAAGCTCAAGTTTA 1380
    |||
Db 1321 CTGCTCGACATCTTCTTAACCTTAACCCAGACCAATTTGTGTGCAAGCTCAAGTTTA 1380
OY 1381 TTTCACCCAGGAACCTCATTTTGTCTTCAACATTTGGGAATTTCTGTCTCTGCCACA 1440
    |||
Db 1381 TTTCACCCAGGAACCTCATTTTGTCTTCAACATTTGGGAATTTCTGTCTCTGCCACA 1440
OY 1441 ACAGAGTTCGCGGAGGAGTATGTACAGGCTGGCGCTTGTGGTCTCTCAGT 1500
    |||
Db 1441 ACAGAGTTCGCGGAGGAGTATGTACAGGCTGGCGCTTGTGGTCTCTCAGT 1500
OY 1501 CTTCAGCCAAACATCATATGATCCCATGAAGACAGCGGAAAGCCCTGGCTCTAAGATA 1560
    |||
Db 1501 CTTCAGCCAAACATCATATGATCCCATGAAGACAGCGGAAAGCCCTGGCTCTAAGATA 1560
OY 1561 TCCATCTCTCCGCAACCAAAATCTTCCATTCACAGATGACGACCCCTCATCCCCATC 1620
    |||
Db 1561 TCCATCTCTCCGCAACCAAAATCTTCCATTCACAGATGACGACCCCTCATCCCCATC 1620
OY 1621 ATATGTGTGGTTCAGGAACGGCATAGCCCGTTTATGGTCTCTCAACAT ---AG 1676
    |||
Db 1621 ATATGTGTGGTTCAGGAACGGCATAGCCCGTTTATGGTCTCTCAACAT ---AG 1676
OY 1677 AAACCTCAAGAACACACCCAGATGGAATTTTGGAGCAATGTGTTTGGTGC 1736
    |||
Db 1677 AAACCTCAAGAACACACCCAGATGGAATTTTGGAGCAATGTGTTTGGTGC 1736
OY 1737 AGGCATAAGATAGGATTTATCTATTGAGAAAAGCTCAGACATTCCTCTTAAGATGG 1796
    |||
Db 1737 AGGCATAAGATAGGATTTATCTATTGAGAAAAGCTCAGACATTCCTCTTAAGATGG 1796
OY 1797 ATCTTAATCTAATAAGGTTTCTCTTCAAGAGATGCTCTGTTGGGAGAGGAGAGACC 1856
    |||
Db 1797 ATCTTAATCTAATAAGGTTTCTCTTCAAGAGATGCTCTGTTGGGAGAGGAGAGACC 1856
OY 1801 ATCTTAATCTAATAAGGTTTCTCTTCAAGAGATGCTCTGTTGGGAGAGGAGAGACC 1860
    |||
Db 1801 ATCTTAATCTAATAAGGTTTCTCTTCAAGAGATGCTCTGTTGGGAGAGGAGAGACC 1860
OY 1857 CCAGAAAGTATGTACAGACACATCCAGCTTCATGGCCAGAGAGTGGCGAATCCTC 1916
    |||
Db 1857 CCAGAAAGTATGTACAGACACATCCAGCTTCATGGCCAGAGAGTGGCGAATCCTC 1916
OY 1917 CTCCAGAGAGAGGCGCATTTATGTGTGAGATGGAAGAAATGTGGCCAAAGATGA 1976
    |||
Db 1917 CTCCAGAGAGAGGCGCATTTATGTGTGAGATGGAAGAAATGTGGCCAAAGATGA 1976
OY 1921 CTCGAGAGAGAGGCGCATTTATGTGTGAGATGGAAGAAATGTGGCCAAAGATGA 1980
    |||
Db 1921 CTCGAGAGAGAGGCGCATTTATGTGTGAGATGGAAGAAATGTGGCCAAAGATGA 1980
OY 1977 CATGATGCCCTTGTGCAATATAATAGCAAGAGTGGAGTTGAAAACCTAGAACAATG 2036
    |||
Db 1977 CATGATGCCCTTGTGCAATATAATAGCAAGAGTGGAGTTGAAAACCTAGAACAATG 2036
OY 2037 AAAACCCCTGGCCACTTAAAGAGAAAGAAAGCGCTACCTTCAGAGATTTGGTCATTA 2093
    |||
Db 2037 AAAACCCCTGGCCACTTAAAGAGAAAGAAAGCGCTACCTTCAGAGATTTGGTCATTA 2093
    |||
Db 2041 AAAACCCCTGGCCACTTAAAGAGAAAGAAAGCGCTACCTTCAGAGATTTGGTCATTA 2097
    |||

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## RESULT 5

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US-09-371-347-43
: Sequence 43, Application US/09371347
: Publication No. US20030082676A1
: GENERAL INFORMATION:
: APPLICANT: Roy A. Gravel et al.
: TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE:
: TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE
: TITLE OF INVENTION: DEFECTS, CARDIOVASCULAR DISEASE, AND CANCER
: FILE REFERENCE: 50004/003003
: CURRENT APPLICATION NUMBER: US/09/371,347
: PRIOR FILING DATE: 1999-08-10
: PRIOR APPLICATION NUMBER: 60/071,622
: PRIOR FILING DATE: 1998-01-16
: PRIOR APPLICATION NUMBER: 09/232,028
: NUMBER OF SEQ ID NOS: 51
: SOFTWARE: FastSeq for Windows Version 4.0
: SEQ ID NO 43
: LENGTH: 2097

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: TYPE: DNA
: ORGANISM: Homo sapiens
US-09-371-347-43
Query Match 99.3%; Score 2077.4; DB 12; Length 2097;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 2092; Conservative 0; Mismatches 1; Indels 4; Gaps 1;
OY 1 ATGAGAGAGTTTCTGTACTATATGCTACACAGCAGGAGGAGCAAGAGCCATGCGCAGA 60
    |||
Db 1 ATGAGAGAGTTTCTGTACTATATGCTACACAGCAGGAGGAGCAAGAGCCATGCGCAGA 60
OY 61 GAAATGTGTAGACCAAGCTGTGTATCATGATTTTCTGAGATCTTCACTGTATAGTAA 120
    |||
Db 61 GAAATGTGTAGACCAAGCTGTGTATCATGATTTTCTGAGATCTTCACTGTATAGTAA 120
OY 121 TCCGATTAAGTATGACCTTAATAAACCAACAGCTCTCTTGTGTGTGTTTCAACAG 180
    |||
Db 121 TCCGATTAAGTATGACCTTAATAAACCAACAGCTCTCTTGTGTGTGTTTCAACAG 180
OY 181 GGCACCGGAGACCCACCGGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240
    |||
Db 181 GGCACCGGAGACCCACCGGACACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240
OY 241 CTGCGGTTGATTTCTTGTCTACCTGGGATAGGGTTACTGGTCTCGGTGATTACAGAA 300
    |||
Db 241 CTGCGGTTGATTTCTTGTCTACCTGGGATAGGGTTACTGGTCTCGGTGATTACAGAA 300
OY 301 TACACCTACTTTTGAATGGGGGGAAGATTAATGATTAACGACTTCAAGAGCTTGGAGCC 360
    |||
Db 301 TACACCTACTTTTGAATGGGGGGAAGATTAATGATTAACGACTTCAAGAGCTTGGAGCC 360
OY 361 CGGCATTTCTATGACACTGACATGACATGACTGTAGTTTGAAGTTGTGGTTAG 420
    |||
Db 361 CGGCATTTCTATGACACTGACATGACATGACTGTAGTTTGAAGTTGTGGTTAG 420
OY 421 CCGTGATGTTCTGGAATGCGCAGCCCTCAGAAAGCATTTTATAGTCAAGAGAGACAA 480
    |||
Db 421 CCGTGATGTTCTGGAATGCGCAGCCCTCAGAAAGCATTTTATAGTCAAGAGAGACAA 480
OY 481 GAGGAGATTAAGGGGCGACCTCCGGTGGCATCAGCTGATCCTTATAGAGACAGACTTGTG 540
    |||
Db 481 GAGGAGATTAAGGGGCGACCTCCGGTGGCATCAGCTGATCCTTATAGAGACAGACTTGTG 540
OY 541 AAGTCAGAGCTGCTACATTTGAATCTCAAGTCGAGCTTCTGAGATTTGATGATTCAGGA 600
    |||
Db 541 AAGTCAGAGCTGCTACATTTGAATCTCAAGTCGAGCTTCTGAGATTTGATGATTCAGGA 600
OY 601 AGAAGGATTTGAGGTTTGAAGCAAAATGCAAGACAGCAACCAATCCAAATGTGTA 660
    |||
Db 601 AGAAGGATTTGAGGTTTGAAGCAAAATGCAAGACAGCAACCAATCCAAATGTGTA 660
OY 661 ATGSAAGCTTTGAGTCCCTCACTTACCGGTTGGTACCCGCAACCTCCAGGCTCTGTG 720
    |||
Db 661 ATGSAAGCTTTGAGTCCCTCACTTACCGGTTGGTACCCGCAACCTCCAGGCTCTGTG 720
OY 721 AATATTCCTGTTTAAACCCAGAAATTTTACAGGTATCTGCAAGAGATCTCTTGGCCAG 780
    |||
Db 721 AATATTCCTGTTTAAACCCAGAAATTTTACAGGTATCTGCAAGAGATCTCTTGGCCAG 780
OY 781 GAGGAAAGCCAAAGTATCTGTGACTTACAGAGATCCAGTTTTCAGAGTCCCAATTTCAAG 840
    |||
Db 781 GAGGAAAGCCAAAGTATCTGTGACTTACAGAGATCCAGTTTTCAGAGTCCCAATTTCAAG 840
OY 841 GCAGTTCAACTTACAGAAATGATGCCATTAATAACCACTGCTGCTGTAATTTGACACTT 900
    |||
Db 841 GCAGTTCAACTTACAGAAATGATGCCATTAATAACCACTGCTGCTGTAATTTGACACTT 900
OY 901 TCAATTAAGACTTTTCTATCAGCCTGAGATGCTTCAAGAGATGCTTGCCTTACAGT 960
    |||
Db 901 TCAATTAAGACTTTTCTATCAGCCTGAGATGCTTCAAGAGATGCTTGCCTTACAGT 960
OY 961 GATTCTGAGGTACAAAGCCTACTCCAAAGACTGAGCTTGAAGATTAAGAGAGACACTGC 1020
    |||

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Db 961 GATTCTGAGTACAAAGCTTACTCCAAAGACTGCAGCTTGAGATATAAAGAGAGCACTGC 1020  
 Oy 1021 GTCCCTTTGAAATAAAGGACACAAAGAAAGAAAGAGCACTTACCAGCATATA 1080  
 Db 1021 GTCCCTTTGAAATAAAGGACACAAAGAAAGAAAGAGCACTTACCAGCATATA 1080  
 Oy 1081 CCTGGGGATGTTCTCTCAGTTCAATTTTACCTGGTGTCTGAATCCGAGCAATTCCT 1140  
 Db 1081 CCTGGGGATGTTCTCTCAGTTCAATTTTACCTGGTGTCTGAATCCGAGCAATTCCT 1140  
 Oy 1141 AAAAAGCATTTTTCGAGCCCTTGAGCATATACAGTGCAGTGTGAAAAAGCGCAGG 1200  
 Db 1141 AAAAAGCATTTTTCGAGCCCTTGAGCATATACAGTGCAGTGTGAAAAAGCGCAGG 1200  
 Oy 1201 CTACAGAGCTGTGCAGTAACAAAGGGGAGCCGATATAGCCGCTTGTACGAATGCC 1260  
 Db 1201 CTACAGAGCTGTGCAGTAACAAAGGGGAGCCGATATAGCCGCTTGTACGAATGCC 1260  
 Oy 1261 TGTGCTGCTTGTGTGATCTCTCGCTTCCCTTCCCTTTCGAGCAGCACTCAGTCTC 1320  
 Db 1261 TGTGCTGCTTGTGTGATCTCTCGCTTCCCTTCCCTTTCGAGCAGCACTCAGTCTC 1320  
 Oy 1321 CTGCTCGAATCTTCTCTAACTCAACCCAGACCATATTCGTGCAAGCTCAAGTTTA 1380  
 Db 1321 CTGCTCGAATCTTCTCTAACTCAACCCAGACCATATTCGTGCAAGCTCAAGTTTA 1380  
 Oy 1381 TTTTCAACCCAGAAAGCTCATTTTGTCTTCAACATTTTGGAAATTTCTCTACTGCCACA 1440  
 Db 1381 TTTTCAACCCAGAAAGCTCATTTTGTCTTCAACATTTTGGAAATTTCTCTACTGCCACA 1440  
 Oy 1441 ACAGAGGTTCTCGAAGAGGATATGTACAGGCTGGCTGGCTTGTGGTCTCTCAGTT 1500  
 Db 1441 ACAGAGGTTCTCGAAGAGGATATGTACAGGCTGGCTGGCTTGTGGTCTCTCAGTT 1500  
 Oy 1501 CTTCAGCCAAACATACATGCATCCCATGAAAGACAGCGGAAAGCCCTGGCTCTTAAGATA 1560  
 Db 1501 CTTCAGCCAAACATACATGCATCCCATGAAAGACAGCGGAAAGCCCTGGCTCTTAAGATA 1560  
 Oy 1561 TCCATCTCTCTCGAAGCAAAATTTCTTCCATTAACCGATGAGCCCCCATTCGCCATC 1620  
 Db 1561 TCCATCTCTCTCGAAGCAAAATTTCTTCCATTAACCGATGAGCCCCCATTCGCCATC 1620  
 Oy 1621 ATAAATGTGGGTCTCGAAGACCGGATAGCCCGTTTATGGGTCTCTAACAATAGAGAG 1680  
 Db 1621 ATAAATGTGGGTCTCGAAGACCGGATAGCCCGTTTATGGGTCTCTAACAATAGAGAG 1680  
 Oy 1677 AAATCTCAAGAAACACACCAGATGGAAATTTTGGAGCAATGTGTTTTTGGCTGC 1736  
 Db 1681 AAATCTCAAGAAACACACCAGATGGAAATTTTGGAGCAATGTGTTTTTGGCTGC 1740  
 Oy 1737 AAGCAATTAAGGATAGGATATATATTTCAGAAAAAGCTAGACATTTCTTAAAGATGGG 1796  
 Db 1741 AAGCAATTAAGGATAGGATATATATTTCAGAAAAAGCTAGACATTTCTTAAAGATGGG 1800  
 Oy 1797 ATCTTAACATCATTAAGGTTTCTCTCTCAAGAGATGCTCTGTTGGGAGAGAGAGCC 1856  
 Db 1801 ATCTTAACATCATTAAGGTTTCTCTCTCAAGAGATGCTCTGTTGGGAGAGAGAGCC 1860  
 Oy 1857 CCAGAAAGTATGTACAAAGCAACATCCAGCTTCAATGGCCAGAGGTGGCGAAATCTCTC 1916  
 Db 1861 CCAGAAAGTATGTACAAAGCAACATCCAGCTTCAATGGCCAGAGGTGGCGAAATCTCTC 1920  
 Oy 1917 CTCACAGGAGAGCGCCATTTTATGTGTGTGAGATGCAAAAGATATGGCCAAAGATGTA 1976  
 Db 1921 CTCACAGGAGAGCGCCATTTTATGTGTGTGAGATGCAAAAGATATGGCCAAAGATGTA 1980  
 Oy 1977 CATGATGCCCTTGTGCAAAATTAAGCAAAAGAGGTTGAGTTGAAAAACTTAAAGCAATG 2036  
 Db 1981 CATGATGCCCTTGTGCAAAATTAAGCAAAAGAGGTTGAGTTGAAAAACTTAAAGCAATG 2040  
 Oy 2037 AAAACCTGGCCACTTTAAAGAAAAAACCTACCTTACAGATATTTGGTCATATA 2093

Db 2041 AAAACCTGGCCACTTTAAAGAAAAACGCTACTTCAAGATATTTGGTCATATA 2097  
 RESULT 6  
 US-09-371-347-45  
 ; Sequence 45, Application US/09371347  
 ; Publication No. US20030082676A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Roy A. Gravel et al.  
 ; TITLE OF INVENTION: HUMAN METHIONINE SYNTHASE REDUCTASE.  
 ; TITLE OF INVENTION: CLONING, AND METHODS FOR EVALUATING RISK OF NEURAL TUBE  
 ; FILE REFERENCE: 50004/003003  
 ; CURRENT APPLICATION NUMBER: US/09/371,347  
 ; PRIOR APPLICATION NUMBER: 60/071,622  
 ; PRIOR FILING DATE: 1998-01-16  
 ; PRIOR APPLICATION NUMBER: 09/232,028  
 ; PRIOR FILING DATE: 1999-01-15  
 ; NUMBER OF SEQ ID NOS: 51  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 45  
 ; LENGTH: 2094  
 ; TYPE: DNA  
 ; ORGANISM: Homo sapiens  
 US-09-371-347-45  
 Query Match 98.6%; Score 2063; DB 12; Length 2094;  
 Best Local Similarity 99.7%; Pred. No. 0;  
 Matches 2090; Conservative 0; Mismatches 0; Indels 7; Gaps 2;  
 Oy 1 ATGAGAGAGTTCTGTACTATATGCTACACAGCAGGAGGAGCAAAAGCCATCGCAGAA 60  
 Db 1 ATGAGAGAGTTCTGTACTATATGCTACACAGCAGGAGGAGCAAAAGCCATCGCAGAA 60  
 Oy 61 GAAATGTGTGACCAAGCTGTGTACATGATTTTGTGAGATCTTCACTGATTAAGTGA 120  
 Db 61 GAAATGTGTGACCAAGCTGTGTACATGATTTTGTGAGATCTTCACTGATTAAGTGA 120  
 Oy 121 TCCGATTAAGTATGACTTAAACCAACCAAGAGCTCTCTGTGTGTGTCTTCTACACG 180  
 Db 121 TCCGATTAAGTATGACTTAAACCAACCAAGAGCTCTCTGTGTGTGTGTCTTCTACACG 180  
 Oy 181 GGCACCGAGACCCACCCGACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240  
 Db 181 GGCACCGAGACCCACCCGACAGCCGCAAGTTTGTAAAGAAATACAGAACCAACA 240  
 Oy 241 CTGCGGTTGATTTCTTCTCACCCTGCGATAGGTTACTGGTCTCGTGATTCAGAA 300  
 Db 241 CTGCGGTTGATTTCTTCTCACCCTGCGGATAGGTTACTGGTCTCGTGATTCAGAA 300  
 Oy 301 TACACCTACTTTTGCAGTGGGGGAAATATTTGATTAACGACTTCAGAGCTTGAGCC 360  
 Db 301 TACACCTACTTTTGCAGTGGGGGAAATATTTGATTAACGACTTCAGAGCTTGAGCC 360  
 Oy 361 CGGCAATTTATGACACCTGACATGAGATGACTGTGTGATTTGAACCTTGGTGGG 420  
 Db 361 CGGCAATTTATGACACCTGACATGAGATGACTGTGTGATTTGAACCTTGGTGGG 420  
 Oy 421 CCGTGGATTTGCTGAGCTGTGGCCAGCCCTCAGAAAGCATTTTAAAGTCAAGAGAGACA 480  
 Db 421 CCGTGGATTTGCTGAGCTGTGGCCAGCCCTCAGAAAGCATTTTAAAGTCAAGAGAGACA 480  
 Oy 481 GAGAGATTAAGTGGCGGACCTCCCGGTGGCATCCTGCATCTTGTAGAGCAGACCTGTG 540  
 Db 481 GAGAGATTAAGTGGCGGACCTCCCGGTGGCATCCTGCATCTTGTAGAGCAGACCTGTG 540  
 Oy 541 AAGTACAGACCTCTACACTGAATCTCAAGTGCAGGCTCTGAGATTGATTCAGGA 600  
 Db 541 AAGTACAGACCTCTACACTGAATCTCAAGTGCAGGCTCTGAGATTGATTCAGGA 600  
 Oy 601 AGAAAGATTCAGAGTTTGAAGCAAAATGCAAGTGAACAGCAACCAATCCAATGTTGTA 660  
 Db 601 AGAAAGATTCAGAGTTTGAAGCAAAATGCAAGTGAACAGCAACCAATCCAATGTTGTA 660

Db 601 AGAAGGATTCGAGTTTGAAGCAAAATGCAGTAAACGACACCAATCCAAATGTTGTA 660  
 QY 661 ATTGAAGACTTTAGTCTCATTACCGCTTGCTACCCCACTCTCACAAGCCCTCTG 720  
 Db 661 ATTGAAGACTTTAGTCTCATTACCGCTTGCTACCCCACTCTCACAAGCCCTCTG 720  
 QY 721 AATATTCCTGTTACCCCAAGAAATATTTACAGTACATCTGAGAGAGTCTTTGGCCAG 780  
 Db 721 AATATTCCTGTTACCCCAAGAAATATTTACAGTACATCTGAGAGAGTCTTTGGCCAG 780  
 QY 781 GAGAAAGCCAAATCTGTGACTGAGCATCAGATTTTCAAGTCCAAATTTTCAAG 840  
 Db 781 GAGAAAGCCAAATCTGTGACTGAGCATCAGATTTTCAAGTCCAAATTTTCAAG 840  
 QY 841 GCAGTCAACTTACTACGAATGATGCCATTAATAAACCACTCTGCTGTAGATTGACATT 900  
 Db 841 GCAGTCAACTTACTACGAATGATGCCATTAATAAACCACTCTGCTGTAGATTGACATT 900  
 QY 901 TCAATACAGACTTTCTATGAGCGTGGAGATGCTTCAAGCTGATCTGCTTAAACAT 960  
 Db 901 TCAATACAGACTTTCTATGAGCGTGGAGATGCTTCAAGCTGATCTGCTTAAACAT 960  
 QY 961 GATTCTGAGGTACAAAGCCTACTCACAAGCTGCACTTGAAGATTAAGAGAGCACTGC 1020  
 Db 961 GATTCTGAGGTACAAAGCCTACTCACAAGCTGCACTTGAAGATTAAGAGAGCACTGC 1020  
 QY 1021 GTCTTTTGAATAAAGGACACACAAAGAAAGAGCTACCTTACCCAGCATATA 1080  
 Db 1021 GTCTTTTGAATAAAGGACACACAAAGAAAGAGCTACCTTACCCAGCATATA 1080  
 QY 1081 CCTGCGGATGTTCTCTCAGTTTACCTGCTGTGAATTCGAGCAATTCCT 1140  
 Db 1081 CCTGCGGATGTTCTCTCAGTTTACCTGCTGTGAATTCGAGCAATTCCT 1140  
 QY 1141 AAAAAGGCATTTTGGGAGCCCTTGTGACTATACAGTACAGTGTGAAAAGCCAG 1200  
 Db 1141 AAAAAGGCATTTTGGGAGCCCTTGTGACTATACAGTACAGTGTGAAAAGCCAG 1200  
 QY 1201 CTACAGGACCTGCGAGTAAACAAAGGGGACCGGATTAAGCCGCTTTTACGAGATGCC 1260  
 Db 1201 CTACAGGACCTGCGAGTAAACAAAGGGGACCGGATTAAGCCGCTTTTACGAGATGCC 1260  
 QY 1261 TGTGCTGCTGTTGGATCTCTCCGCTTCCCTTCCCTGCGAGCCACCACTGCTC 1320  
 Db 1261 TGTGCTGCTGTTGGATCTCTCCGCTTCCCTTCCCTGCGAGCCACCACTGCTC 1320  
 QY 1321 CTGCTGGAACATCTTCTAACTCAACCCAGACCATATTCGTGCAAGCTCAAGTTTA 1380  
 Db 1321 CTGCTGGAACATCTTCTAACTCAACCCAGACCATATTCGTGCAAGCTCAAGTTTA 1380  
 QY 1381 TTTCAACCCAGGAAGACTCATTTTGTCTTCAACATTTGGAATTTCTGTACTGCGACA 1440  
 Db 1381 TTTCAACCCAGGAAGACTCATTTTGTCTTCAACATTTGGAATTTCTGTACTGCGACA 1440  
 QY 1441 ACAGAGTTCTGCGAAGGAGATGTATGACAGCTGCGCTGCTGTTGTTGCTTCAAGT 1500  
 Db 1441 ACAGAGTTCTGCGAAGGAGATGTATGACAGCTGCGCTGCTGTTGTTGCTTCAAGT 1500  
 QY 1501 CTTTACGCAAAACATCATGATCCCATGAAGACAGCGGAAAGCCCTGCTCTTAAGATA 1560  
 Db 1501 CTTTACGCAAAACATCATGATCCCATGAAGACAGCGGAAAGCCCTGCTCTTAAGATA 1560  
 QY 1561 TCCATCTCTCTCTGCAACAATTTCTTCCATTCACAGATGACCCCTCAATCCCATC 1620  
 Db 1561 TCCATCTCTCTCTGCAACAATTTCTTCCATTCACAGATGACCCCTCAATCCCATC 1620  
 QY 1621 ATATGATGTTGTCGGAAGCGGATAGCCCGTTATTTGGTCTCTCAACATAGAGAG 1680  
 Db 1621 ATATGATGTTGTCGGAAGCGGATAGCCCGTTATTTGGTCTCTCAACATAGAGAG 1680  
 QY 1677 AAACCTCAGAACAACACACAGATGGAATTTTGGAGCAATGTGTTTGGTCTG 1736  
 Db 1677 AAACCTCAGAACAACACACAGATGGAATTTTGGAGCAATGTGTTTGGTCTG 1736  
 QY 1681 AAACCTCAGAACAACACACAGATGGAATTTTGGAGCAATGTG---GTTTTGGTCTG 1737  
 Db 1681 AAACCTCAGAACAACACACAGATGGAATTTTGGAGCAATGTG---GTTTTGGTCTG 1737

QY 1737 AGGCATTAAGAGTATGAGATTAATCTATTCAGAAAAGACTGAGACATTTCTTAAGCATGGG 1796  
 Db 1738 AGGCATTAAGAGTATGAGATTAATCTATTCAGAAAAGACTGAGACATTTCTTAAGCATGGG 1797  
 QY 1797 ATCTTAATCTATTAAGGTTTCTCTCAAGAGATGCTCTGTTGGGAGAGAGAGCC 1856  
 Db 1798 ATCTTAATCTATTAAGGTTTCTCTCAAGAGATGCTCTGTTGGGAGAGAGAGCC 1857  
 QY 1857 CCAGCAAGATATTAAGCAACATCCAGCTTCAAGGCTGAGAGAGTGGCGAGATCTTC 1916  
 Db 1858 CCAGCAAGATATTAAGCAACATCCAGCTTCAAGGCTGAGAGAGTGGCGAGATCTTC 1917  
 QY 1917 CTCACAGAGAGGCGCATATTTATGTGTGAGATGCAAGAAATATGSCCAAGATGTA 1976  
 Db 1918 CTCACAGAGAGGCGCATATTTATGTGTGAGATGCAAGAAATATGSCCAAGATGTA 1977  
 QY 1977 CATGATGCCCTTGTGCAATATATAGCAAAAGAGTTGAGTTGAAAAACTAGAAGCATG 2036  
 Db 1978 CATGATGCCCTTGTGCAATATATAGCAAAAGAGTTGAGTTGAAAAACTAGAAGCATG 2037  
 QY 2037 AAAACCTGCGCACTTAAGAAAGAAACGCTACCTCAGATATTTGGTCATTA 2093  
 Db 2038 AAAACCTGCGCACTTAAGAAAGAAACGCTACCTCAGATATTTGGTCATTA 2094

## RESULT 7

US-09-909-567B-38  
 ? Sequence 38, Application US/09909567B  
 ? Publication No. US20030022257A1  
 ? GENERAL INFORMATION:  
 ? APPLICANT: Macina, Roberto A.  
 ? APPLICANT: Nair, Manoj  
 ? APPLICANT: Chen, Selju  
 ? TITLE OF INVENTION: Compositions and Methods Relating to Lung Specific Genes  
 ? FILE REFERENCE: DEX-0214  
 ? CURRENT APPLICATION NUMBER: US/09/909,567B  
 ? PRIOR FILING DATE: 2001-07-20  
 ? PRIOR APPLICATION NUMBER: 60/219,834  
 ? NUMBER OF SEQ ID NOS: 56  
 ? SOFTWARE: PatentIn version 3.1  
 ? SEQ ID NO 38  
 ? LENGTH: 2475  
 ? TYPE: DNA  
 ? ORGANISM: Homo sapien  
 ? FEATURE:  
 ? NAME/KEY: misc.feature  
 ? LOCATION: (1001)..(1001)  
 ? OTHER INFORMATION: a, c, g or t  
 ? FEATURE:  
 ? NAME/KEY: misc.feature  
 ? LOCATION: (1011)..(1011)  
 ? OTHER INFORMATION: a, c, g or t  
 ? US-09-909-567B-38

Query Match 8.3%; Score 174.4; DB 12; Length 2475;

Best Local Similarity 96.7%; Pred. No. 9.8e-45;

Matches 178: Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 510 ATCAGCTGATCTTGAAGAGAGACGCTTGTGAAGTCAAGAGTGTACATTTGAATCTCA 569  
 Db 1 ATCAGCTGATCTTGAAGAGAGACGCTTGTGAAGTCAAGAGTGTACATTTGAATCTCA 60  
 QY 570 AGTCAGCTTCTGAGATTCGATGATTCAGGAAGAAAGATTTCTGAGTTTGAAGCAAA 629  
 Db 61 AGTCAGCTTCTGAGATTCGATGATTCAGGAAGAAAGATTTCTGAGTTTGAAGCAAA 120  
 QY 630 TGCAGTGAACAGCAACCAATCAATGTTGTAATGAAGACTTGGTCTCAGCTTAACCG 689  
 Db 121 TGCAGTGAACAGCAACCAATCAATGTTGTAATGAAGACTTGGTCTCAGCTTAACCG 180  
 QY 690 TTCG 693

DB 181 TTCCG 184

## RESULT 8

US-09-917-800A-1351  
; Sequence 1351, Application US/09917800A  
; Patent No. US20020119462A1  
; GENERAL INFORMATION:  
; APPLICANT: Mendrick, Donna  
; APPLICANT: Porter, Mark  
; APPLICANT: Johnson, Kory  
; APPLICANT: Castile, Arthur  
; APPLICANT: Elashoff, Michael  
; APPLICANT: Gene Logic, Inc.  
; TITLE OF INVENTION: Molecular Toxicology Modeling  
; FILE REFERENCE: 44921-5038-US  
; CURRENT APPLICATION NUMBER: US/09/917, 800A  
; CURRENT FILING DATE: 2001-07-31  
; PRIOR APPLICATION NUMBER: US 60/222,040  
; PRIOR FILING DATE: 2000-07-31  
; PRIOR APPLICATION NUMBER: US 60/222,880  
; PRIOR FILING DATE: 2000-11-02  
; PRIOR APPLICATION NUMBER: US 60/290,029  
; PRIOR FILING DATE: 2001-05-11  
; PRIOR APPLICATION NUMBER: US 60/290,645  
; PRIOR FILING DATE: 2001-05-15  
; PRIOR APPLICATION NUMBER: US 60/292,336  
; PRIOR FILING DATE: 2001-05-22  
; PRIOR APPLICATION NUMBER: US 60/295,798  
; PRIOR FILING DATE: 2001-06-06  
; PRIOR APPLICATION NUMBER: US 60/297,457  
; PRIOR FILING DATE: 2001-06-13  
; PRIOR APPLICATION NUMBER: US 60/298,884  
; PRIOR FILING DATE: 2001-06-19  
; PRIOR APPLICATION NUMBER: US 60/303,459  
; PRIOR FILING DATE: 2001-07-09  
; NUMBER OF SEQ ID NOS: 1740  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 1351  
; LENGTH: 1872  
; TYPE: DNA  
; ORGANISM: Rattus norvegicus  
; FEATURE:  
; OTHER INFORMATION: Genbank Accession No. US20020119462A1 E01524  
US-09-917-800A-1351

Query Match 4.0%; Score 83; DB 11; Length 1872;  
Best Local Similarity 55.2%; Pred. No. 2.7e-15;  
Matches 216; Conservative 0; Mismatches 155; Indels 20; Gaps 2;

QY 1588 TTCCACTTACCCAGATGACCCCTCATTCCTCATTAATGTTGGTCCAGAGACCGGCATA 1647  
DB 1387 TTCCCTTCCCTTTCAGTTCACACACACCTGTCATCATGTGGCCCGGCCTGGGATT 1446  
QY 1648 GCGCCGTTTATTTGGTCTCTACACATGAAATCCAGAACACACCCAGATGGAATT 1707  
DB 1447 GCGCTTTCATGGCTTATCATCAGAGAGAGCTTGCTT--CGAAGCAAGGCAAGGAG 1504  
QY 1708 TTGGAGCAATGTGTTGTTTGGCTGAGGACATTAAGATTAAGATTATCTATTCAGAA 1767  
DB 1505 TGGGAGAGACGCTGCTATACATGCTGCGGCGCTCGATGAGACTATCTGTACCGTG 1564  
QY 1768 AAGACTCAGACATTTCTTAAAGATTTAATGATTTAAGCTTTCTCTCA 1827  
DB 1565 AAGACTGAGCCGCTTCCACAGAGAGGCGCTTCCAGAGCTTATGTTGGCTTTTCCC 1624  
QY 1828 GAGATGCTCTGTTGGGAGAGAGAGCCCGCAGCAAGATATGATACAAATCCAGC 1887  
DB 1625 G-----GGAGCAGGCCCAAGAGCTATGTCCAGCACCTTTGGAAGA 1666  
QY 1888 TTCAATGCCAGAGGTGGGAGAAATCTCTTCAGAGAGAGCGCATATTTATGTGTG 1947  
DB 1888 TTCAATGCCAGAGGTGGGAGAAATCTCTTCAGAGAGAGCGCATATTTATGTGTG 1947

DB 1667 GAGACAGGAACACCTGTGAAGCTGATCCAGAGGCGGTGCCACATATGTGTGCG 1726  
QY 1948 GAGATGCAAGAAATTTGGCCAAAGATGTACA 1978  
DB 1727 GGGATGCTCGAAATATGGCCAAAGATGTGCA 1757

## RESULT 9

US-09-917-800A-1397  
; Sequence 1397, Application US/09917800A  
; Patent No. US20020119462A1  
; GENERAL INFORMATION:  
; APPLICANT: Mendrick, Donna  
; APPLICANT: Porter, Mark  
; APPLICANT: Johnson, Kory  
; APPLICANT: Castile, Arthur  
; APPLICANT: Elashoff, Michael  
; APPLICANT: Gene Logic, Inc.  
; TITLE OF INVENTION: Molecular Toxicology Modeling  
; FILE REFERENCE: 44921-5038-US  
; CURRENT APPLICATION NUMBER: US/09/917, 800A  
; CURRENT FILING DATE: 2001-07-31  
; PRIOR APPLICATION NUMBER: US 60/222,040  
; PRIOR FILING DATE: 2000-07-31  
; PRIOR APPLICATION NUMBER: US 60/222,880  
; PRIOR FILING DATE: 2000-11-02  
; PRIOR APPLICATION NUMBER: US 60/290,029  
; PRIOR FILING DATE: 2001-05-11  
; PRIOR APPLICATION NUMBER: US 60/290,645  
; PRIOR FILING DATE: 2001-05-15  
; PRIOR APPLICATION NUMBER: US 60/292,336  
; PRIOR FILING DATE: 2001-05-22  
; PRIOR APPLICATION NUMBER: US 60/295,798  
; PRIOR FILING DATE: 2001-06-06  
; PRIOR APPLICATION NUMBER: US 60/297,457  
; PRIOR FILING DATE: 2001-06-13  
; PRIOR APPLICATION NUMBER: US 60/298,884  
; PRIOR FILING DATE: 2001-06-19  
; PRIOR APPLICATION NUMBER: US 60/303,459  
; PRIOR FILING DATE: 2001-07-09  
; NUMBER OF SEQ ID NOS: 1740  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 1397  
; LENGTH: 2401  
; TYPE: DNA  
; ORGANISM: Rattus norvegicus  
; FEATURE:  
; OTHER INFORMATION: Genbank Accession No. US20020119462A1 M10068  
US-09-917-800A-1397

Query Match 4.0%; Score 83; DB 11; Length 2401;  
Best Local Similarity 55.2%; Pred. No. 3.2e-15;  
Matches 216; Conservative 0; Mismatches 155; Indels 20; Gaps 2;

QY 1588 TTCCACTTACCCAGATGACCCCTCATTCCTCATTAATGTTGGTCCAGAGACCGGCATA 1647  
DB 1556 TTCCGCTTCCCTTTCAGTTCACACACACCTGTCATCATGTGGCCCGGCCTGGGATT 1615  
QY 1648 GCGCCGTTTATTTGGTCTCTACACATGAAATCCAGAACACACCCAGATGGAATT 1707  
DB 1616 GCGCTTTCATGGCTTATCATCAGAGAGAGCTTGCTT--CGAAGCAAGGCAAGGAG 1673  
QY 1708 TTGGAGCAATGTGTTGTTTGGCTGAGGACATTAAGATTAAGATTATCTATTCAGAA 1767  
DB 1616 TGGGAGAGACGCTGCTATACATGCTGCGGCGCTCGATGAGACTATCTGTACCGTG 1733  
QY 1768 AAGACTCAGACATTTCTTAAAGATTTAATGATTTAAGCTTTCTCTCA 1827  
DB 1734 AAGACTGAGCCGCTTCCACAGAGAGGCGCTTCCAGAGCTTATGTTGGCTTTTCCC 1793  
QY 1828 GAGATGCTCTGTTGGGAGAGAGAGCCCGCAGCAAGATATGATACAAATCCAGC 1887  
DB 1794 G-----GGAGCAGGCCCAAGAGCTATGTCCAGCACCTTTGGAAGA 1835

OY 1888 TTCATGCCAGCAGCTGGCAGAAATCTCTCCAGAGACGCCATATTATGTGTG 1947  
 ; TYPE: DNA  
 ; ORGANISM: Zea mays  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; OTHER INFORMATION: Incyte ID NO. US20010051335A1 700355168H1  
 DB 1836 GAGACAGGGAACACCTGTGGAAAGCTGATCCACAGGGGGTCCACATCTATGTGTGCG 1895  
 OY 1948 GAGATGCCAAAGATATGTGCCCAAGATGTACA 1978  
 ; TYPE: DNA  
 ; ORGANISM: Zea mays  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; OTHER INFORMATION: Incyte ID NO. US20010051335A1 700355168H1  
 DB 1896 GGGATGCTCGAAATATGTGCCCAAGATGTGCA 1926

## RESULT 10

US-09-783-590-1364  
 ; Sequence 1364, Application US/09783590  
 ; Patent No. US20020110850A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Dillon, Patrick J.  
 ; APPLICANT: Haseltine, William A.  
 ; APPLICANT: Li, Haodong  
 ; APPLICANT: Rosen, Craig A.  
 ; APPLICANT: Ruben, Steven M.  
 ; TITLE OF INVENTION: Human Genes, Sequences, and Expression Products 16.2  
 ; FILE REFERENCE: PO-16, 2C1  
 ; CURRENT APPLICATION NUMBER: US/09/783, 590  
 ; CURRENT FILING DATE: 2000-02-15  
 ; PRIOR APPLICATION NUMBER: 08/420,856  
 ; PRIOR FILING DATE: 1995-04-12  
 ; PRIOR APPLICATION NUMBER: 08/346,731  
 ; PRIOR FILING DATE: 1994-11-21  
 ; NUMBER OF SEQ ID NOS: 12485  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 1364  
 ; LENGTH: 101  
 ; TYPE: DNA  
 ; ORGANISM: Homo sapiens  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; LOCATION: (2)  
 ; OTHER INFORMATION: n equals a,t,g, or c  
 ; NAME/KEY: misc.feature  
 ; LOCATION: (62)  
 ; OTHER INFORMATION: n equals a,t,g, or c  
 ; US-09-783-590-1364

Query Match 3.8%; Score 79.6; DB 11; Length 101;  
 Best Local Similarity 93.9%; Pred. No. 4.6e-15;  
 Matches 93; Conservative 0; Mismatches 5; Indels 1; Gaps 1;

OY 1671 ACATGAAGCTCCAGAACACACCCAGATGGAATTTTGAGCATGTGTTT 1730  
 ; TYPE: DNA  
 ; ORGANISM: Zea mays  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; LOCATION: (2)  
 ; OTHER INFORMATION: n equals a,t,g, or c  
 ; NAME/KEY: misc.feature  
 ; LOCATION: (62)  
 ; OTHER INFORMATION: n equals a,t,g, or c  
 ; US-09-783-590-1364

## RESULT 11

US-09-294-093B-4842  
 ; Sequence 4842, Application US/09294093B  
 ; Patent No. US20010051335A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Laligudi, Raghunath, V.  
 ; APPLICANT: Ito, Laura, Y.  
 ; APPLICANT: Sherman, Bradley, K.  
 ; TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN TASSEL  
 ; FILE REFERENCE: PL-0009 US  
 ; CURRENT APPLICATION NUMBER: US/09/294, 093B  
 ; PRIOR FILING DATE: 1999-04-16  
 ; PRIOR APPLICATION NUMBER: 60/082,567  
 ; PRIOR FILING DATE: April 21, 1998  
 ; NUMBER OF SEQ ID NOS: 6207  
 ; SOFTWARE: PERL Program  
 ; SEQ ID NO 4842

LENGTH: 298  
 ; TYPE: DNA  
 ; ORGANISM: Zea mays  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; OTHER INFORMATION: Incyte ID NO. US20010051335A1 700355168H1  
 US-09-294-093B-4842

Query Match 3.1%; Score 65; DB 10; Length 298;  
 Best Local Similarity 59.0%; Pred. No. 5e-10;  
 Matches 148; Conservative 0; Mismatches 100; Indels 3; Gaps 2;

OY 1587 TTTCACCTTACACATGACCCCTCAATCCCATATATATGTTGGTCCAGAACCGCAT 1646  
 ; TYPE: DNA  
 ; ORGANISM: Zea mays  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; OTHER INFORMATION: Incyte ID NO. US20010051335A1 700355168H1  
 DB 46 TTTCACCTTACACATGACCCCTCAATCCCATATATATGTTGGTCCAGAACCGCAT 1646  
 OY 1647 AGCCCGTTTATGGTCTTCTACACATATGAACTCCAGAACACCCAGATGAAAT 1706  
 ; TYPE: DNA  
 ; ORGANISM: Zea mays  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; OTHER INFORMATION: Incyte ID NO. US20010051335A1 700355168H1  
 DB 105 GGGTCTTTTAAAGATTTCTTGCAGGAAGGTTAGCACTGA--AACATCTGGAGCAGAA 162  
 OY 1707 TTGGAGCAATGTGTTGTTTGGTCCAGGCGTAAAGATATGATATATATGAA 1766  
 ; TYPE: DNA  
 ; ORGANISM: Zea mays  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; OTHER INFORMATION: Incyte ID NO. US20010051335A1 700355168H1  
 DB 163 CTGGCACTTCAATCTTTCTTTGGATGACGAGAACCTATATGACTACATATATGAA 222  
 OY 1767 AAAGACTCAGACATTTCTTAAAGCATGATCTTAATCTTAAGGTTTCTCTCA 1826  
 ; TYPE: DNA  
 ; ORGANISM: Zea mays  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; OTHER INFORMATION: Incyte ID NO. US20010051335A1 700355168H1  
 DB 223 GATGAGCTGCAACATTTCTTGGAGAGGGGCGCTTCTGAGCTAATTTGCAATTTCT 282  
 OY 1827 AGAGTGTCTC 1837  
 ; TYPE: DNA  
 ; ORGANISM: Zea mays  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; OTHER INFORMATION: Incyte ID NO. US20010051335A1 700355168H1  
 DB 283 CGGAAAGGCC 293

## RESULT 12

US-09-923-876-2845  
 ; Sequence 2845, Application US/09923876  
 ; Patent No. US20020013958A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Laligudi, Raghunath, V.  
 ; APPLICANT: Kamigaki, Laura Y. (Ito)  
 ; APPLICANT: Sherman, Bradley, K.  
 ; TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN SEEDLING  
 ; FILE REFERENCE: PL-0012-1 CON  
 ; CURRENT APPLICATION NUMBER: US/09/923, 876  
 ; CURRENT FILING DATE: 2001-08-06  
 ; PRIOR APPLICATION NUMBER: 09/298,329  
 ; PRIOR FILING DATE: 1999-04-21  
 ; PRIOR APPLICATION NUMBER: 60/085,331  
 ; PRIOR FILING DATE: 1998-05-05  
 ; NUMBER OF SEQ ID NOS: 6332  
 ; SOFTWARE: PERL Program  
 ; SEQ ID NO 2845  
 ; LENGTH: 230  
 ; TYPE: DNA  
 ; ORGANISM: Zea mays  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; OTHER INFORMATION: Incyte ID NO. US20020013958A1 700161271H1  
 ; NAME/KEY: misc.feature  
 ; LOCATION: 196  
 ; OTHER INFORMATION: a, t, c, g, or other  
 ; US-09-923-876-2845

Query Match 3.1%; Score 64; DB 10; Length 230;  
 Best Local Similarity 57.6%; Pred. No. 8.8e-10;  
 Matches 133; Conservative 0; Mismatches 96; Indels 2; Gaps 1;

OY 1594 TTACAGATGACCCCTCAATCCCATATATGTTGGTCCAGAACCGCATGCCCCG 1653  
 ; TYPE: DNA  
 ; ORGANISM: Zea mays  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; OTHER INFORMATION: Incyte ID NO. US20020013958A1 700161271H1  
 DB 2 TTACTGTGATCCGTCACCTCTATATATGTTGGTCCAGAACCGCATGCCCCG 61  
 OY 1654 TTATGCGTCTTCAACATAGAACTCCAGAACACCCAGATGGAATTTGGAG 1713  
 ; TYPE: DNA  
 ; ORGANISM: Zea mays  
 ; FEATURE:  
 ; NAME/KEY: misc.feature  
 ; OTHER INFORMATION: Incyte ID NO. US20020013958A1 700161271H1

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Db      62  TTAGAGGCTTCTTGACAGAAAGTTAGCATTTGA--AACAACTGGGGCAGAAATTTGGGCA 119
Oy      1714 CAAGTGGTGTGTTTTGGTGCAGGCAATAGAGATATATATTCAGAAAGGC 1773
Db      120  CTTCAATCCTTTCTTGGATGACAGAAACCTAATATGAGACTACATAATAGAAAGTAGT 179
Oy      1774 TCAGACATTTCTTAAGCATGGATCTTAACATCATTAAGGTTCTTCT 1824
Db      180  TGCAAACTTCTCTTGANAGAGGGGGCTTTCTGAGCTAATATGTTGCATTTCT 230

RESULT 13
US-09-822-849A-278
: Sequence 278, Application US/09822849A
: Patent No. US20020045170A1
: GENERAL INFORMATION:
: APPLICANT: Wong, Gordon G.
: APPLICANT: Clark, Hilary
: APPLICANT: Fechtel, Kim
: APPLICANT: Agostino, Michael J.
: APPLICANT: Howes, Steven H.
: APPLICANT: Resnick, Richard J.
: APPLICANT: Gulukota, Kamalakar
: APPLICANT: Graham, James R.
: APPLICANT: Genetics Institute, Inc.
: TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS
: FILE REFERENCE: GIN 6A03
: CURRENT APPLICATION NUMBER: US/09/822,849A
: CURRENT FILING DATE: 2001-09-04
: PRIOR APPLICATION NUMBER: 60/195,582
: PRIOR FILING DATE: 2000-04-06
: NUMBER OF SEQ ID NOS: 598
: SOFTWARE: PatentIn Ver. 2.0
: SEQ ID NO 278
: LENGTH: 2470
: TYPE: DNA
: ORGANISM: Homo sapiens
US-09-822-849A-278

Query Match      2.9%: Score 60.4; DB 10; Length 2470;
Best Local Similarity 55.7%: Pred. No. 6.5e-08;
Matches 136; Conservative 0; Mismatches 106; Indels 2; Gaps 1;

Oy      1588 TTCCACTTACCGATGATGCCCTCAATCCCATCATATATGTTGGGTCAGGAACGGGCATTA 1647
Db      1615 TTCCGCGCTGCGCTTCAAGGCCACACGCGCTGTATCATATGTTGGGCCCGGACCGGGGTG 1674
Oy      1648 GCGCCGTTTATTTGGTCTTCAACATAGAAACTCCAGAACACACCCAGATGGAATT 1707
Db      1675 GCACCCCTCATAGGCTTATCATCAGAGGCGGCGCTGGTG--CGACAGCAGGGCAGAGAG 1732
Oy      1708 TTGGAGCAATGTGGTGTGTTTTTTGGCTGCAGCATTAAGGATTAATCTATTTCAGAA 1767
Db      1733 TGGGGAGACGCTGCTGTACTACAGGCTGCCCGCGCTCGAGTAGAGACTACATCTGTACCGGG 1792
Oy      1768 AAGAGCTCAGACATTTCTTAAGCATGGGATCTTAACATCATTAAGGTTCTCTCAAA 1827
Db      1793 AGGAGCTGGCGCAGTTCCACAGAGGAGCGGTGGCTTACCAGCTCAAGGTGGCTTCTCC 1852
Oy      1828 GAGA 1831
Db      1853 GGGA 1856

RESULT 14
US-09-938-842A-803
: Sequence 803, Application US/09938842A
: Patent No. US20020160378A1
: GENERAL INFORMATION:
: APPLICANT: Harper, Jeff
: APPLICANT: Kieps, Joel
: APPLICANT: Wang, Xun
: APPLICANT: Zhu, Tong
```

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: TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING
: FILE REFERENCE: SAME, AND METHODS OF USE
: CURRENT APPLICATION NUMBER: US/09/938,842A
: CURRENT FILING DATE: 2001-08-24
: PRIOR APPLICATION NUMBER: US 60/227,866
: PRIOR FILING DATE: 2000-08-24
: PRIOR APPLICATION NUMBER: US 60/264,647
: PRIOR FILING DATE: 2001-01-16
: PRIOR APPLICATION NUMBER: US 60/300,111
: PRIOR FILING DATE: 2001-06-22
: NUMBER OF SEQ ID NOS: 5379
: SEQ ID NO 803
: LENGTH: 2136
: TYPE: DNA
: ORGANISM: Arabidopsis thaliana
US-09-938-842A-803

Query Match      2.8%: Score 58.4; DB 11; Length 2136;
Best Local Similarity 54.8%: Pred. No. 2.6e-07;
Matches 137; Conservative 0; Mismatches 111; Indels 2; Gaps 1;

Oy      1588 TTCCACTTACCGATGATGCCCTCAATCCCATCATATATGTTGGTCCAGAACGGGCATTA 1647
Db      1657 TTCAAGCTTCTCTTGATTTCAAGGTACCATCATATGATCGGTCAGGAGCTGGATTA 1716
Oy      1648 GCGCCGTTTATTTGGTCTTCAACATAGAAACTCCAGAACACACCCAGATGGAATT 1707
Db      1717 GCTCCATTCAAGAGGATTCCTTCAGGAAAGACTAGCGTTGGT--AGAAATCTGTGTTGTAAC 1774
Oy      1708 TTGGAGCAATGTGGTGTGTTTTTTGGCTGCAGGATCAAGATTAAGGATTAATTTACAAA 1767
Db      1775 TTGGGCCATTCAGATTTTGTCTTTTGATGCAGAACCCAGATTAAGATTTTCATACGAGG 1834
Oy      1768 AAGAGCTCAGACATTTCTTAAGCATGGGATCTTAACATCATTAAGGTTCTCTCAAA 1827
Db      1835 AAGAGCTCAGGATTTGTGAGAGTGTGTGCTGCGAGAGCTAAGTGTGCGCTTCTCTC 1894
Oy      1828 GAGATCTCC 1837
Db      1895 GTGAAGGAC 1904

RESULT 15
US-09-765-873A-13
: Sequence 13, Application US/09765873A
: Patent No. US20010053847A1
: GENERAL INFORMATION:
: APPLICANT: Tang, Xiao-Song
: TITLE OF INVENTION: BIOPRODUCTION OF PARA-HYDROXYCINNAMIC ACID
: FILE REFERENCE: BC1009 US CIP
: CURRENT APPLICATION NUMBER: US/09/765,873A
: CURRENT FILING DATE: 2001-01-19
: PRIOR APPLICATION NUMBER: US 09/627,216
: PRIOR FILING DATE: 2000-07-27
: PRIOR APPLICATION NUMBER: US 60/147,719
: PRIOR FILING DATE: 1999-08-06
: NUMBER OF SEQ ID NOS: 38
: SOFTWARE: Microsoft Office 97
: SEQ ID NO 13
: LENGTH: 1863
: TYPE: DNA
: ORGANISM: Helianthus tuberosus
: FEATURE:
: NAME/KEY: CDS
: LOCATION: (1)..(1764)
US-09-765-873A-13

Query Match      2.7%: Score 56; DB 10; Length 1863;
Best Local Similarity 49.0%: Pred. No. 1.4e-06;
Matches 253; Conservative 0; Mismatches 240; Indels 23; Gaps 3;

Oy      1576 ACAACAATTTCTTTCACCTTACAGATGATGCCCTCAATCCCATCATTAATATGTTGGTCCA 1635
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Db	1276	AGAACCTGACACTTCAGACTTCAGAGCTGACCTTAAGATCCCGGTATATCATATATGGCCCT	1335
OY	1636	GGAACCGGCATATAGCCCCGCTTATTTGGTTCCTACACATAGAAACTCCAAAGACACACC	1695
Db	1336	GGAACCGGGTTGGCTCCGCTTATAGAGGTTTCTTCAAGAAAGATTAGCTTCAGAGAAATCT	1395
OY	1696	CAGATGGAAATTTTGGAGACATGATGGTTGTTTTTGGCTCGAGGCATTAAGATAGGATT	1755
Db	1386	GGAACCGGACTTC--GGTCAATCCATTTTGTCTTCCTGGTGGTGAAGAACCGTAAGCTGATT	1453
OY	1756	ATCTATTCAGAAAAGAGCTCAGACATTTCCCTTAAGCATGGGATCTTAACATCATCTAAAGG	1815
Db	1454	TCATATATNGAATAATGAAGCTGAACAACCTTGTGTGAATAATGGCGCCCTTTCGAGCTTGACA	1513
OY	1816	TTTCTCTTCACAGAGATGCTCCTGTTGGGAGGAGAAAGCCCAAGATATGTACAAAG	1875
Db	1514	TGGCTTCTCTCCGCG-----GAAGCGGCTACTTAAGAAATACCTGCAAC	1555
OY	1876	ACAACATCCAGCTTCATGCGCCAGAGAGTGGGAGCAATTCCTCCAGAGACAGCGCAT	1935
Db	1556	ATTAATAATGAGCCAAAGAGCTTCGGATAT--ATGAACATATGCTTCTGAGGAGACATACT	1612
OY	1936	TTTATGCTGTGAGAGATGCAAAAGATATAGGCCAAGAGATGTACATGATGCCCCCTTGCAAA	1995
Db	1613	TATACGTGTGGTGGATGTGSCCAAAAGCANTGGCTAATAGATGTACACCGAACCCTTACACCA	1672
OY	1996	TAAATAGCAAGAGCTTGAGTGAATAAAACTAGAGCAATGMAAAACCCCTGCCACTTAA	2055
Db	1673	TTTGTCAGAAAGACAGGAAATTTTGGATTCCCTTAAGACAGAGCTGTATGTGAAGAAATCTAC	1732
OY	2056	AAGAAGAAAAACGCTACCTTCAGATATTTGGCTAT	2091
Db	1733	AAATGTGGGAGATACCTCCGTGATGTTGGTGTAT	1768

Search completed: July 29, 2003, 23:03:28  
Job time : 426.273 secs